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ABSTRACT

This is the final report of the project entitled "A Study to Determine the Degree of Relationship between Linguistic Concepts and Structures in French as a Mother Tongue and Stages of Psychological Readiness of Students at the Junior and Intermediate Levels." The project's primary aim was to determine the psychological readiness, with relation to the intuitive and conscious acquisition of grammar concepts, of pupils in grades 4-8 of Ontario French schools. The project report includes: a review of the literature and the theoretical rationale of the project; a description of the design and construction of the "Test de Comprehension de Structures Linguistiques" (TCSL), an instrument created as part of the project; a description of methodology; and a description of final results, conclusions, and pedagogical implications. Following a bibliography, appendices contain: a hierarchy of grammar concepts; results from a pilot study; sample instruments; tables indicating results of the project; and a table for use of the TCSL as a norm-referenced test. (Author/AM)

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AN INQUIRY INTO
THE PSYCHOPEDAGOGY
OF LANGUAGE ACQUISITION
IN THE SCHOOL AGE CHILD
(A STUDY OF READINESS)

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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February 29, 1976

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CHAPTER ONE

INTRODUCTION

This is the final report of the project entitled "A Study to Determine the Degree of Relationship Between Linguistic Concepts and Structures in French as a Mother Tongue and Stages of Psychological Readiness of Students at the Junior and Intermediate Levels".

The purpose of this project is to provide information that will aid in the realistic pacing of instruction in *grammaire* in grades 4, 5, 6, 7 and 8.

The project owes its existence to a group of teachers who, in the course of preparing a curriculum for *Français*, took note of, and drew attention to, the need for matching the material taught to the psychological readiness of the students.

The teachers, drawing on their professional experience, divided the content of *grammaire* into its constituent parts. They noted that each aspect could be acquired in two distinct fashions, unconsciously and consciously. That is, the student could unconsciously acquire an intuitive ability to use certain structures but he also could consciously learn to be aware of their explicit nature. The teachers asked at which grade level the child would be ready to acquire each of these grammatical elements first at the intuitive and then at the conscious level. The present document is the final report of the research project that was brought into being in order to answer that question.

It was expected that the project would investigate the possible answers to several specific questions.

First, in what sequence are the structures that form the *grammaire* curriculum now taught in the French schools of Ontario?

Second, what is the sequence in which these structures are intuitively acquired?

Third, what is the relationship between this intuitive grammatical development and psychological readiness?

Fourth, what is the sequence in which grammatical structures are acquired at the conscious level?

Fifth, what is the relationship between these conscious acquisitions and psychological readiness?

Sixth, and last, how can a teacher assess when a child is ready to benefit from instruction in any of these grammatical structures at either the intuitive or conscious level?

ii. The Approach Adopted

The six questions are not easily answered within the scope of one investigation. The breadth of subject matter suggested by them poses two major problems. The first major challenge is the operationalization of the variables within them. The second challenge is the isolation of the most profitable course to follow for empirical investigation. We shall discuss both problems.

The first problem may seem peculiar at first glance. Both theoretical and empirical research require clear conceptual definitions of the variables being explored. The breadth of the tasks to which we addressed ourselves made the provision of such definitions difficult. If one begins with a theoretically well settled area, univocal definitions of reasonable power are accessible to broad and narrow studies alike. However, if one's topic is in a state of theoretical disequilibrium, the heuristic power of the definitions chosen may significantly influence the fruitfulness of one's enterprise. The choice of a conceptual perspective in a study as broad as ours thus becomes problematical as one discovers that what is heuristically facilitative in one part of our study is restricting in another part.

Thus we have had to choose between the elegance and tidiness of a single conceptual framework and the freedom to explore afforded by the disciplined use of several complementary but differing perspectives. We have chosen the latter approach for two of our major concepts. Firstly, for our purposes, grammar shall be variously defined. Secondly, the distinction between intuitive and conscious learning of grammar has been made from several theoretical perspectives. We trust that the insights gained from this approach outweigh any inconvenience resulting from the increased theoretical complexity required.

The second problem posed by the breadth of the six questions was the focussing of our empirical efforts so that they yielded maximum results without sacrificing scientific credibility. As it was not possible within the scope of one study to follow all the avenues for empirical research implied by the six questions, priorities had to be established. The first priority was that the area chosen be one of immediate pedagogical relevance. The second criterion was that the area be one that provides answers not now available from the research literature. A third criterion was that it be a subject in which research of a limited duration could produce results of more than exploratory interest.

The area chosen was the learning of grammar concepts taught in the schools. It has been explored in terms of the breadth and depth of understanding displayed by the students at five grade levels. The grade levels at which instruction in a particular concept was found to be effective was taken as an indication of the age at which readiness for that concept is developed. The research was performed with the *Test de Compréhension de Structures Linguistiques*, an instrument created as a part of the present project.

The rationale of the choice discussed above is discussed at greater length in section viii of chapter 2.

It should be noted that the empirical work undertaken is only part of the present project. The review of the literature and the theoretical explorations are also of major importance.

iii. The Relevance of the Project

The value of this project lies in both the theoretical and practical domains. Language development is an integral part of human development. It is influenced by, and influences, all other aspects of development. The unconscious ease with which language is acquired marks it as an attribute that is central in the nature of man. Understanding the nature of language acquisition is of interest to the epistemologist, the psychologist, the sociologist and the anthropologist.

For the teacher, language is the most important medium of communication. The child's verbal ability will influence his academic life.

In addition, readiness is of great importance in instruction. Teaching before a child is ready can lead to frustration and negative attitudes towards the subject matter which may, in turn, seriously impede potential progress when the child is cognitively ready.

Finally, this project addresses itself to a pedagogical area in which the level of rhetoric often outstrips the available research. Decisions on the value of grammatical instruction and prescriptions for its reform or abandonment abound. These proclamations and the accompanying debate are often made in the absence of rigorous analysis and without proper reference to the existing theoretical and empirical literature. It is hoped that this report will be a contribution in the direction of rectifying that situation.

iv. The Organization of the Report

The next chapter contains a discussion of the questions we are attempting to answer. It includes theoretical speculation as well as a review of the literature. Moreover, it presents the theoretical foundations on which the empirical portions of this study rest.

Chapter 3 describes the design and construction of the *Test de Compréhension de Structures Linguistiques*.

Chapter 4 presents the procedures followed in the research which employed that instrument.

The results and a discussion of the results are the subject of chapter 5.

Chapter 6 is entitled "Conclusions". It presents the pedagogical implications of our research.

CHAPTER TWO

REVIEW OF THE LITERATURE AND THEORETICAL FOUNDATIONS

This chapter contains a review of the literature and the theoretical rationale of our study.

The heterogeneity of the material to which we must address ourselves does not allow us to present in great detail the results of what has been an exhaustive review of the literature. Accordingly, what follows is, to a large extent, the result of a process of synthesis and of a process of drawing inferences relevant to the purposes of the study.

The preceding chapter indicated that the distinction between conscious and intuitive understanding of grammar was to be viewed from several perspectives; section ii of this chapter will introduce those perspectives.

Competing conceptions as to the nature of grammar will be introduced in section iii.

Next, in section iv, we will turn to the nature of language acquisition in general and to the acquisition of intuitive grammatical mastery in the school-age child in particular. Subsequently, section v will examine how cognitive development relates to language acquisition and to the intuitive mastery of grammar in the school-age child.

Section vi of this chapter will explore the interrelationship of intuitive mastery and conscious knowledge of grammar. An examination of the emergence of conscious grammatical knowledge will follow in section vii and we shall speculate on the relationship of this development to cognitive development.

The contents of the preceding sections will be referred to as a basis for the rationale on which a choice of directions for empirical research was made. That rationale will be outlined in Section viii.

Finally, in section ix, we shall explore the psychological nature of concepts in general, the properties of grammatical concepts in particular, and Klausmeier's theory of conceptual development, thus setting the stage for subsequent chapters which will describe our research on the acquisition of grammatical concepts.

ii. Intuitive and Conscious Learning of Grammar

The questions posed by the project require that intuitive and conscious learning of grammar be separated. Establishing such a dichotomy appears to be useful. It allows one to discriminate between the intuitive ability of the child who uses verbs correctly but does not know what a verb is and the conscious understanding of the grammarian who can explain the system of rules on which that correct use of verbs is based.

It is, however, difficult to rigorously define the dichotomization in a univocal manner that would facilitate both the diverse theoretical discussion to which we must address ourselves and the empirical research which we have undertaken. We have found distinctions similar to that between intuitive and conscious learning made in three separate areas of the literature. Each of these areas offers a slightly different perspective on our problems. Each has a great deal of heuristic value for specific areas of inquiry within our project but none suffices on its own. The three approaches are not logically incompatible. We have thus decided to note each separately and to pursue the insights offered by each where they are most appropriate.

The first perspective has its roots in philosophy. It is the distinction between language development and metalinguistic development.

Language development is the intuitive development of language within an individual. It is what is usually described by linguists who choose to take a developmental point of view.

Metalinguistic development refers to a more reflective understanding of language. Metalanguage is language about language[1]. Metalinguistic knowledge is knowledge about language; that is, conscious understanding of language[2]. Metalinguistic development is development of awareness of the nature of language.

We have decided to resist the temptation to use the term *metagrammar* for the purposes of our discussions.

The distinction between these two terms is of value to us because they are specific to language and because they clearly dichotomize between the two phenomena which interest us. The distinction also has two drawbacks for our purposes. First, it promotes confusion because linguistics, as a science, is really metalanguage, that is, language about language, and one often finds linguistic development used interchangeably with language development in the literature. Second, the language-metalanguage dichotomy channels our explorations into the scant linguistic literature dealing with this distinction at the expense of the broader psychological literature that discusses the supraordinate problem of the dichotomy between ability to act and awareness of the nature of that action.

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[1] Louis Hjelmsler, *Prolégomènes à une Théorie du Langage*, Paris, Minuit, 1968, p. 156-171.

[2] Roman Jakobson, Concluding Statement Linguistics and Poetics in T.A. Sebeok (ed.), *Style in Language*, Cambridge, Mass., M.I.T. Press, 1960, p. 356.

An example of this supraordinate approach to the distinction between intuitive and conscious knowledge of grammar is that adopted by the Russian cyberneticist L.N. Landa[3]. Landa's translator chose the words *mastery* for intuitively acquired ability and *knowledge* for conscious understanding. The common usage of these terms makes it necessary to emphasize that they are used by Landa for two specific, clearly defined, phenomena.

Mastery refers, in general, to the ability to intuitively perform a series of actions such as operating a machine, conducting an interview, or speaking a language. It does not imply any understanding of the nature of the process being used, just the ability to use the process. One can master riding a bicycle without knowledge of physics, one can master an interviewing technique without knowledge of social psychology, and one can master a mother tongue without knowledge of linguistics.

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[3] L.N. Landa, *Algorithmization in Learning and Instruction*, Englewood Cliffs, Educational Technology Publications, 1974, p. 9.

Knowledge, on the other hand, is understanding. It is awareness of the formal nature of the process one is employing. It does not necessarily imply accompanying mastery. One may know the laws of balance and still fall off one's bicycle, one may know social psychology and still be awkward in social situations, and one may know the rules of grammar of a language and still not be capable of speaking it with grammatical fluency.

Landa's conception of mastery and knowledge resembles language development and metalinguistic development in many ways, but is more general in scope. Landa considers the relationship between mastery and knowledge in grammar to be an example of a more general psychological phenomenon.

Both the above approaches share an important drawback. They do not offer an experimental paradigm which we can easily adopt to our purposes so as to operationalize the distinction between language mastery or development and metalinguistic knowledge for empirical research purposes.

We have therefore embraced a third, complementary point of view which, although it does not enjoy all the theoretical usefulness of the preceding approaches, does serve our purposes in terms of facilitating empirical work that is both theoretically based and relevant to immediate pedagogical concerns. That approach is contained in the theory of conceptual development of Herbert J. Klausmeier[4]. Klausmeier addresses himself to the attainment of concepts. His theory is thus not of sufficient breadth to allow an exploration of language development in general. It is, however, useful in that it allows a rigorous exploration of both mastery of grammatical concepts and knowledge of those same concepts. His formulation that parallels language development or mastery is the attainment of concepts at the classificatory level. Klausmeier explains that people who have attained a concept at the *classificatory level* have the ability to identify examples and non-examples of the concept without necessarily knowing the criteria they are using to establish membership in the group of phenomena that comprise the concept. Klausmeier cites[5] research in which subjects, who can unerringly ascertain which items are or are not examples of a concept, provide entirely erroneous definitions of the concept. A person having attained a concept at this functional level may or may not know the name of the concept.

In contrast to attainment of a concept at the classificatory level, Klausmeier postulates a more developed stage called the *formal level*. At this stage one can explain why a certain object is or is not an example of a concept. It is the stage in which one is aware of the nature of the concepts one is using rather than relying on the intuitive use of those concepts.

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[4] Herbert J. Klausmeier, Elizabeth Schwenn Ghatala and Dorothy A. Frayer, *Conceptual Learning and Development*, New York, Academic Press, 1974, vii-283p.

[5] Klausmeier, *Ibid*, p. 18.

At the formal level, one has knowledge of the concepts.

It is perhaps worth noting that attainment at the formal level will, according to Klausmeier, mean that one can use the concept at the classificatory level. This is in contrast to Landa who maintains that knowledge does not necessarily lead to mastery. The apparent conflict is lessened, however, if one bears in mind that Landa addresses himself to learning of procedures and operations, that is, the ability to do, whereas Klausmeier's interest is the learning of concepts, that is, the ability to classify. The overlap between learning operations and attaining concepts is considerable but the distinction between them is nevertheless significant.

We have thus seen that the distinction between intuitive grammar development and conscious grammar understanding is consistent with several theoretical analyses. Intuitive development parallels language development, mastery and attainment of grammatical concepts at the classificatory level. Conscious understanding parallels metalinguistic development, knowledge and attainment of grammatical concepts at the formal level.

While we have reason to employ each of these conceptual approaches for specific inquiries, we shall, in general, adopt Landa's terms mastery and knowledge for intuitive and conscious learning.

Finally, we have dealt in this section only with the question of conceptual definitions. An exploration of the nature of the interrelationship of these two phenomena, that is, mastery and knowledge, is pursued in section vi of this chapter.

iii. What is Grammar?

If one wishes to discover when grammar is acquired one must know what it is that is being acquired. Thus, finding a suitable description of the phenomenon called grammar is the first responsibility that the investigator of grammar acquisition must have.

The different schools of linguistics provide descriptions of grammar that are substantially at variance with one another. The complexity of language is such that no one school has succeeded in fully describing or explaining its nature. Although certain linguistic systems are clearly suitable for specific portions of our study, no one school of language theory seems to respond to all our needs. We shall, therefore, briefly describe and evaluate three major schools of linguistics. Our analysis will of course reflect our perspective as pedagogues and students of language acquisition and our evaluation will emphasize the heuristic quality of the grammars rather than their sophistication as theories of language. Furthermore, while we acknowledge the interrelatedness of phonetics, semantics and syntax, we shall focus on syntax.

The first grammatical system that we will discuss is traditional grammar. This system is familiar to most of us who have enjoyed a formal education. It has very little support among present-day linguists but still enjoys wide popularity among pedagogues. Latin grammar provided the model for traditional grammar, and the difficulty of adapting that model to French is best illustrated by the profusion of exceptions that follow each rule. While it may be weak in describing the realities of French, it has earned its place in education because of its system of parts of speech tied to their semantic function. There is perhaps a pedagogical wisdom in the simple description of a noun identifying a place, person or thing, rather than using the far more complex definitions that have evolved from modern linguistics.

It is unlikely that the cumbersome rules and exceptions of traditional grammar are an accurate reflection of the foundation which the mind uses in the intuitive production of grammatical speech. We are, therefore, reluctant to employ it in the description of the acquisition of grammatical mastery. However, its pedagogical popularity makes it an important framework for discussions of the learning and teaching of conscious grammatical knowledge within the schools.

The second school of linguistics of interest is structuralism[6,7]. It is a close relative of the empiricism of American psychology. The focus in structuralism is on observable language behaviour. Language is viewed as a series of emitted words, the interrelationships of which are analyzed with little reference to their meanings. Because the structuralists inductively derive the rules of the grammar from the language output of the speaker of that language, they avoid the

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[6] L. Bloomfield, *Language*, New York, Holt, Rinehart & Winston, 1933, ix-564p.

[7] George P. Faust, "Basic Tenets of Structural Linguistics", in Harold B. Allen (ed.), *Readings in Applied Linguistics*, New York, Appleton-Century-Crofts, 1958, p. 63-67.

artificiality of some traditional grammatical rules.

This school's method of classifying words is typical of its strictly empirical approach. The structuralists group words by their "privileges of occurrence" rather than by their semantic function. For example, those words which can fill the slot in the sentence: *It was a...day*, have similar privileges of occurrence. Using a vast array of similarly slotted sentences, a hierarchy of classifications can be built and differentiated.

The resultant system is impressive in its complexity and discrimination. However, structuralists have been criticized for their writing of purely descriptive rather than prescriptive grammar. Their technique fails to differentiate between the grammatical, agrammatical and merely novel. The structuralist's response, that grammaticality can be determined as a function of probability of occurrence, is inadequate, as it would lead to difficulty in explaining the grammaticality of the sentence: *Elephants have no sense of Zen Buddhism.*

Structuralism's major weakness, as does its strength, comes from its refusal to infer from what is spoken to the structures within the mind of the speakers. The speech of man is infinite in its variety. Most sentences spoken are either new or very rare. Such a phenomenon would seem to call for an approach that tries to infer underlying mechanisms rather than remain at the level of data description.

For our purposes, structuralism provides a powerful tool with which to analyze the utterances of children. Its research techniques can also be employed to good pedagogical advantage in helping the student discover for himself the structure of the language he uses. Its complexity and its neglect of the psychology of its rules are its disadvantages.

The third system of grammatical description with which we are concerned is the generative-transformational grammar associated with the insights of Noam Chomsky[8]. His decidedly mentalist approach is a contrast to structuralism and will probably be classified by the historians of psychology as part of the intellectual revolution against the extreme empiricism of behaviouristic approaches to human studies. The transformational approach is widely accepted among modern linguists.

The major supposition of the theory is that the speaker of a language has a finite set of rules, that is, an internal grammar with which he can translate an infinity of internal meanings into grammatically correct utterances. These rules are used to generate speech and writing; they pair meanings with the proper sounds or written representations.

The search for the internal rules of grammar that must be mastered in order to produce the sentences of a language is especially relevant to students of language acquisition. To the extent that those rules are accurate, they can be taken as an indication of what is really acquired in syntactic development. How psychologically real are rules thus far proposed by the transformational school? Research reviewed by

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[8] J.P.B. Allen and P. Van-Buren, *Chomsky: Selected Readings*, New York, Oxford University Press, 1971, 166p.

Bever[9] and Fodor and Garrett[10] on the relationship of these rules to psychological processes, leads one to the conclusion that they are not without foundation but are very far from being perfect. Nevertheless, they represent an approach that is likely to yield insights into the mental processes of language acquisition.

While we cannot, without engaging in a lengthy digression, do justice to an explanation of transformational grammar, we will briefly note certain key concepts that we believe are essential to the tasks with which we are concerned. Chomsky differentiates between *competence* and *performance*. A person's grammatical competence will refer, for our purposes, to his internal grammatical structures and thus, his potential for grammatical performance. Performance refers to actual language output. Factors such as motivation, anxiety, memory limitation, inattention and social reinforcements may lead to performance that is less grammatically correct than the potential allowed by competence. People who are well versed in grammar often write agrammatical sentences when first putting their ideas on paper and then revise their writing to correspond more closely to their grammatical intuition, that is, to their competence. This illustrates that they have the grammatical competence but do not always apply it.

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[9] Thomas G. Bever, "The Cognitive Basis for Linguistic Structures", in *Cognition and the Development of Language*, edited by J.R. Hayes, New York, John Wiley and Sons, 1970, p. 279-352.

[10] J.A. Fodor and M. Garrett, "Some Syntactic Determinants of Sentential Complexity", in *Perception and Psychophysics*, 1968, Vol. 4, p. 304-306.

Sinclair[11] reminds us that competence can be less advanced than performance when one is dealing with children who may have memorized certain standard sequences of words without internalizing the grammatical rules necessary to generate them.

To summarize, performance is actual linguistic behaviour, competence is internal grammatical knowledge. The former is not necessarily a direct reflection of the latter.

Another useful distinction that characterizes the school of generative grammar is that of deep and surface structure. Deep structure is related to meaning, surface,to actual utterances. The surface structures of the sentences:

(1) *He hit the boy.*

(2) *The boy was hit by him.*

are quite different. The deep structures are identical.

Finally, we should note the meaning of transformation. It is a process by which kernel or underlying sentences (usually assumed to be simple, active, declarative sentences) are transformed into the variety of surface structural representations. Sentences can be transformed from active to passive, from positive to negative, from two sentences to one and so on.

Although we do not subscribe to some of the positions of orthodox transformationalism, the approach has the exceptional advantage, for our purposes, of approximating most closely that which is likely learnt when language is naturally mastered.

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[11] H. Sinclair-de-Zwart, "Developmental Psycholinguistics", in *Essays in Honor of Jean Piaget*, edited by Elkind and Flavell, New York, Oxford Press, 1969, p. 33.

In terms of teaching knowledge of grammar, the theory should be cautiously embraced. Its complexity may make it less pedagogically useful than some simple systems for the early grades. Less sophisticated grammars may not be the most advanced descriptions of natural phenomena, but may be good first approximations for young students.

We have looked at three schools of grammatical description and noted their salient features, strengths and weaknesses. Traditional grammar was marked for its pedagogical popularity, structuralism by its descriptive power and transformationalism by its psychological insight.

Rather than choose among them, we intend, in what follows, to pursue the insights to be gained from each by adopting its point of view where doing so seems to offer us the greatest heuristic advantage.

iv. The Acquisition of Grammatical Mastery in the School-Age Child

Our objective is to describe the sequence in which grammar is acquired at the age level of the junior and intermediate school student. Before reviewing the literature directly related to that topic we wish to make certain observations regarding language acquisition in general. These should aid us in the interpretation of those findings which are more directly relevant to our objectives.

There have been numerous researches on language acquisition. Most of them concentrate on early childhood. That work and the accompanying theoretical debate have been well reviewed by several authors[12,13,14]. We shall limit ourselves to extracting from these many studies those generalizations that illuminate the basic nature of language acquisition.

The first and perhaps most important discovery is that child language is rule-governed. The evidence indicates that the speech of children is neither an attempt to reproduce sequences memorized from adult speech nor a random and agrammatical outpouring of words. When a child learns a language he gradually learns its rules. The rules governing young children's speech are different from those generating an adult's utterances. Language development is the evolution of these early rules toward those of adult speakers.

To illustrate the orderliness of child language, one can refer to the work of Berko[15]. She asked children to form the plural of several nonsense words, for example, *wug*. The responses were exactly what grammatical rules would prescribe, that is *wugs*, and certainly could not have been memorized. Similarly, the existence of systematic errors, for example, *he goed to the store*, can be taken as evidence of a child's

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[12] David McNeil, "The Development of Language", in *Carmichael's Manual of Child Psychology*, edited by Paul H. Mussen, New York, Behavioral Science Book Service, 1970, Vol. 1, p. 1061-1162.

[13] John B. Carroll, "Language Development in Children", in *Encyclopedia of Educational Research*, edited by Chester W. Harris, New York, Macmillan, 1960, p. 744-752.

[14] Marc Richelle, *L'acquisition du langage*, 2^e ed., Bruxelles, Dessart, 1972, 215p.

[15] J. Berko, "The Child's Learning of English Morphology", in *Word*, 1958, Vol. 14, p. 150-177.

reliance on rules, not memory.

A discovery closely allied with the one above is the high degree of internal consistency found in child language[16].

When analyzing child language, even as early as the stage of two-word utterances, linguists find that they can write grammatical rules that have considerable descriptive adequacy. Some believe that in the early stages these "child grammars" are applicable not only to most children of one community, but to a surprising variety of cultures and languages.

Another feature of children's language is the speed with which it is acquired. One needs only to glance at a modern linguistics text on the nature of grammar to appreciate the complexity of what is learnt by the child in what is usually little more than three years.

Another topic of relevance is the relative roles played by heredity and learning in language development. The speed and complexity of language acquisition has led many people to hypothesize that there must be some innate linguistic universal grammar that allows the child to very quickly learn the language spoken in this environment. This position, especially popular among the transformational-generative linguists, is supported by the failure of traditional learning theory, and theories of cognitive development, to satisfactorily explain the acquisition of syntax. Psychologists of the behavioural school and developmental psychologists do not readily agree with this position.

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[16] David McNeil, *The Acquisition of Language, A Study of Development Pyscholinguistics*, New York, Harper and Row, 1970, p. 3.

While it is outside the scope of our study to enter into this debate which concentrates on the very young child, it is necessary, for the purposes of later discussion, to clarify our position. That position is that the interaction of heredity, previous learning, and environment, determines the development of language in the school-age child.

We turn now to a review of the literature on the language development of the school-age child. Although studies of earlier development have to a certain extent eclipsed those concerned with the school-age child, the latter have not been entirely ignored. We shall be concerned mostly with studies of syntax; but one should not forget that phonological development and semantic development are also occurring during the school years.

The earliest studies of language development in the school-age child dealt mostly with the gross aspects of linguistic behaviour[17]. The variables assessed were amount of speech, mean sentence length and relative frequency of simple, complex and compound sentences. Sentence length emerged as the best index of linguistic maturation. There was of course a parallel increase in complexity of construction.

The more recent studies fall into two major categories. The first group describes changes in the profile of structures used by the children. They offer data on the relative frequency of each grammatical pattern used in the speech and writing of students at different grade levels. The second group of studies is more limited in scope but reports on new acquisitions rather than changes in the frequency of usage of previously acquired structures.

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[17] Dorothea A. McCarthy, "Language Development in Children", in *Manual of Child Psychology*, edited by Leonard Carmichael, New York, John Wiley and Sons, 1954, p. 492-630.

We shall review the works of the former group first. They share a methodology that consists of collecting samples of spontaneous or elicited child speech and analyzing it into its constituent patterns.

An ambitious piece of research carried out by Strickland[18] used the structuralist framework to analyze language collected from five hundred seventy-five students in grades one through six. She used phonological rather than semantic indicators to distinguish the units which for her study were regarded as sentences. A highly complex system of *movables*, *fixed slots*, *connectors* and the classes of words and phrases that could fill those places allowed her to identify a progression from six hundred fifty-eight structural patterns employed in grade one, to one thousand forty-one current in grade six. The developmental trends discovered by the high analytical resolution of structural dissection were comprised of new permutations and combinations of structures already acquired rather than the acquisition of new structures.

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[18] Ruth G. Strickland, "The Contribution of Linguistics to the Teaching of Reading, Writing and Grammar in the Elementary School", in *Bulletin of the School of Education*, Indiana University, 1964, Vol. 40, No. 1, p. vi-41.

Hocker[19] and Riling[20] did similar studies with groups whose home backgrounds were more varied than those in Strickland's. Their overall results were similar but indicated the sensitivity of habitual language patterns to socio-cultural background.

Loban[21] also employed the structuralist framework but he deviated from the above studies by segmenting his samples into *communication units*. The communication unit is a grammatically independent predicate or an answer to a question that requires only the repetition of the question to satisfy the criterion of independence. The study focussed on ability rather than grade grouping. Nevertheless, it did reveal a progression from kindergarten to grade nine that can be characterized by a decrease in incomplete structures, greater variation of structural patterns, and greater variation of structures employed within individual sentences.

Another structuralist study conducted in the French schools of Ontario[22] reported findings compatible with those above.

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[19] Mary Elsa Hocker, *Reading Materials for Children Based on Their Language Patterns of Syntax, Vocabulary and Interests*, unpublished Master's Thesis, University of Arizona, 1963.

[20] Mildred E. Riling, *Oral and Written Language of Children in Grades 4 and 6 Compared with the Language of Their Text Books*, 1965, Report to the United States Office of Education, Research Project 2410.

[21] W.D. Loban, *The Language of Elementary School Children*, NCTE Report No. 1, Champaign, Ill., 1963, xvi-92p.

[22] Jacques Vachon, *A Proposal for a Structural Analysis of the Language Development of the Child as a Base for Learning a Mother Tongue*, unpublished report presented to the Minister of Education in Ontario, 1973, p. 246-670.

We now turn to studies based on the transformational grammar paradigm. The results are for the most part in agreement with those stated previously.

Menyuk [23,24] concludes from a series of studies that nearly all the transformations of adult language are present in nursery school children. She does, however, inform us that children in grade one still have not acquired the full complement of transformational rules for use of the auxillary *have*, the participle complement, iteration, nominalization, pronominalization of the conjunctions *if* and *so*.

A study by Hunt[25], in the tradition of the search for indices of syntactic maturity, explored the development of sentence-combining transformations. These transformations can account for much of the elegance, succinctness and economy of mature speech. Within the Chomskian paradigm, they are believed to occur as potentially independent kernel sentences that are joined through the use of modifiers, phrases and the like. For example, the deep structure kernel sentences:

(3) *It was yesterday.*

(4) *I was in the park.*

(5) *I saw a man.*

(6) *He rode a bike.*

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[23] Paula Menyuk, "Syntactic Structures, the Language of Children", in *Child Development*, 1963, Vol. 34, p. 407-422.

[24] Paula Menyuk, *Sentences Children Use*, Cambridge, Mass., M.I.T. Press, 1969, xii-165p.

[25] Kellog W. Hunt, *Grammatical Structures Written at Three Grade Levels*, NCTE Report No. 3, Champaign, Ill, 1965, xix-159p.

(7) *The bike was red.*

can be combined to form the surface structure sentence:

(8) *Yesterday, while in the park, I saw a man riding a red bike.*

Much of the apparent difference in style between adult and children's speech is due to the latter's failure to use these transformations.

Hunt used the length of *T-Unit*, a structure equivalent to a main clause together with any subordinate clauses that may be grammatically related to it, as a measure of use of sentence-combining transformations. He reports a steady increase in T-Unit length through the school years.

Hunt also notes that while the structures investigated change in frequency of usage, they are all present in the language of grade four children.

T-Unit was also the basis of a study by O'Donnell[26]. He reports an increase in average length of T-Unit from seven to ten words between grades one to seven. This study underlined the relative intensity of linguistic change between kindergarten and grade one and between grades five and seven.

So far we have seen little information regarding new structures acquired. The studies above agree that the vast majority of structures are acquired before school begins. To discover new developments one must turn to the second group of studies. These are tightly controlled experiments drawing on small samples and focussing on one or two structures at a time. They all relate to the pairing of surface and deep structure, that is, the child's comprehension of specific grammatical forms.

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[26] Roy C. O'Donnell, William J. Griffin and Raymond C. Norris, *Syntax of Kindergarten and Elementary School Children: A Transformational Analysis*, NCTE Research Report No. 8, Champaign, Ill., 1967, xv-115p.

Pre-eminent in this group is the research of Carol Chomsky[27, 28] Her work employed Piaget-style interview techniques. She started with the knowledge that six-year-old children have acquired nearly all the obvious linguistic structures. She drew on the insight of transformational-generative grammar to predict four sources of syntactic complexity likely to require late acquisition. Chomsky dealt with very few examples of each of these sources and tested only forty children ranging in age from six to ten years.

The first three structures are related to violations of the *Minimal Distance Principle* (MDP). This rule states that "the implicit subject of the complement verb is the noun phrase most closely preceding it". Consider the following examples of this principle:

(9) *John wanted Bill to leave.*

(10) *John wanted to leave.*

(11) *John saw Bill driving by.*

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[27] Carol Chomsky, *The Acquisition of Syntax in Children from 5 to 10*, Cambridge, M.I.T. Press, 1969, 126p.

[28] Carol Chomsky, "Stages in Language Development and Reading Exposure", in *Harvard Educational Review*, 1972, Vol. 42, No. 1, p. 1-33.

In sentence (9) the subject of the verb *to leave* is the closest noun *Bill*. In sentence (10) *John* is the closest noun and thus the subject of the complement verb *leave*. Similarly, in sentence (11) the closest noun, *Bill*, is the subject of the complement verb *driving*.

The first three types of structures considered by Chomsky were exceptions to this principle because the subject of the complement verb was not the nearest noun. Sentence (12) is an example of such a structure:

(12) *John promised Bill to go.*

The fourth type of structure analyzed in Carol Chomsky's study is the relationship between the surface structure pronoun and its deep structure referent. In most sentences containing a noun phrase and a pronoun, the pronoun usually refers to that noun phrase. Sentence (13) is an example of this rule.

(13) *When he was tired, John took a nap.*

The sentences used in the Chomsky experiment contained pronouns which could not refer to the noun phrase in the sentence. Sentence (14) is an example of such a situation.

(14) *Knowing that John was going to win the race bothered him.*

The four sources of complexity, exemplary structures and the exact sources of difficulty are summarized in *Table 1*. (see page 32).

Chomsky concluded from her study that: structures A, B, and C are strongly subject to individual rates of development, that A and B are acquired between ages 5 to 6 and 9, that structure C is still imperfectly acquired by some children at age 10, and that structure D is acquired fairly uniformly at about age 5 to 6. In addition, she

Table 1. Summary of C. Chomsky's Research

Type of Syntactic Complexity	Specific Structures Used for Study	Source of Difficulty
A. The true grammatical relations which hold among the words in a sentence are not expressed directly in its surface structure.	John is easy to see	Subject of sentence is the object rather than the subject of *see*, a violation of MDP.
B. The syntactic structure is at variance with the general pattern in the language.	John promised Bill to go.	Subject of *go* is John rather than Bill, a violation of MDP.
C. A conflict exists between two potential syntactic structures associated with a particular verb.	John asked Bill what to do	Subject of *do* is John rather than Bill, a violation of MDP.
D. Restrictions on a grammatical operation apply under certain limited conditions only.	He knew that John was going to win the race.	Reference of *he* is not to John although John is the only noun phrase in the sentence.

noted that the order in which these acquisitions are made appears to be invariant. This order includes the establishment of the rule, the appearance of the exception, the overgeneralization of the exception to cases where the rule should apply and the disappearance of overgeneralization with appropriate use of the rule and the exceptions. Finally, she concluded that the age at which an individual child will pass through these various stages cannot be predicted on the basis of our present understanding.

Similar studies have been performed by Kessel[29] and Cromer[30]. They provided what they claimed were methodological refinements of Carol Chomsky's procedure but achieved compatible results. The ages of acquisition did vary and were younger in Kessel's study. Cromer used mental age rather than straight chronological age as an independent variable and was rewarded with more distinct developmental trends.

The early acquisition of adequate mastery of pronouns reported above has been contradicted by several studies[31].

Another group of studies that focusses on comprehension deals with connectives, such as *because*, *although*, *therefore*, *but*, etc.

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[29] F.S. Kessel, "The Role of Syntax in Children's Comprehension from Ages Six to Twelve", in *Monographs of the Society for Research in Child Development*, 1970, Vol. 35 (Whole No. 139), 95p.

[30] Richard F. Cromer, "The Learning of Surface Structure Clues to Deep Structure by a Puppet Show Technique", in *Quarterly Journal of Experimental Psychology*, 1972, Vol. 24, No. 1, p. 66-74.

[31] David S. Palermo and Dennis L. Molfesse, "Language Acquisition from Age Five On", in *Psychological Bulletin*, issue of December 1972, Vol. 78, No. 6, p. 409-428.

These words could perhaps be considered as semantic acquisitions, but because they play an essential functional role in the formation of syntactic connections we shall include them.

The use of the word *because* has been shown to change from an indication of temporal succession to an expression of causality between grades one to six[32].

The proper use of the contradictory connectives, *although*, *despite* and *but*, is not exhibited until at least grade six[33,34].

Finally, the word *or* is often interpreted as *and* by students all the way through high school[35].

Another comprehension task which has been shown to be evolving through the elementary school years is the interpretation of passive sentences. It is interesting to note that in those sentences containing a deep structure made obvious by semantic content this difficulty does not occur[36]. Thus the passive sentence, *the boy was bitten by the dog*, is easily understood because of the obvious probability of the dog performing the action. The passive sentence, *the brown dog was chased*

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[32] Herbert George Karl, *The Development of Language in Children: An Analysis of Selected Works of Jean Piaget with Implications for the English Program, K-9*, unpublished Doctoral Dissertation, Florida State University, 1971.

[33] *Ibid.*

[34] V.N. Babin, "Understanding of Contradictions by Pupils in Grades Two to Seven", in *The Genesis of Language*, edited by Frank Smith and George Miller, M.I.T. Press, 1966, p. 363-364.

[35] Palermo, *et al.*, *Op. Cit.*, p. 421.

[36] *Ibid*, p. 420.

by the white dog, is often misinterpreted because of the necessity of relying entirely on syntactic rather than semantic cues in order to discover the deep structure.

The literature reviewed in this chapter provides evidence of definite development of a child's linguistic capacity after he reaches school age. However, when this development is contrasted to the mastery attained before school begins it seems unimpressive in both quality and power.

The question may arise as to whether grammar must be retaught for written language. What is the relationship between the grammar of oral and written language? Aside from morphological differences in written forms that are not phonetically marked, grammatical competence for speech is grammatical competence for writing. However, performance requires more than competence. Phonetic performance is well established but the neuromotor connections prerequisite to the application of grammatical competence into writing must be established through training[37]. Furthermore, because performance is partly shaped by social reinforcement and because structures socially acceptable in spoken language are frowned upon when written, the teacher must take the responsibility of training the student to use the more formal rules in his grammatical repertoire when writing. Although exposure to written language will probably aid in attaining this objective, there is reason to believe that actual student practice at writing, and teacher feedback vis a vis grammar is highly desirable for the development of adequate grammatical performance in writing.

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[37] Ned Gez, "Language Training, Interrelationships Between Oral and Written Forms of Communications", in *Inostrannye iazyki v shkole*, 1966, No. 2, p. 24-32.

The competence-performance dichotomy again comes to mind when reading Bateman and Zidonis'[38] report which states that half the sentences of grade nine students are malformed. Teachers rightly question the linguists who claim that the teacher's students are so very advanced grammatically. The teachers know that the students make many mistakes. Are the linguistic emperors walking the school halls naked, while the teachers shyly applaud? We think not. Competence is a necessary but not sufficient condition for grammatical language production. Students must be taught to discipline their language so that it matches what they themselves would intuitively judge as being grammatical.

In conclusion, the most impressive fact that emerges from the study of the grammar of school-age children is its completeness. The child has acquired most of the structures of adult language by the time he reaches grade four. There are of course changes in style, succinctness and elegance of expression due to increasing use of sentence combining transformations and logical connectives. There are also increases in grammatical competence, as patterns which deviate from the normal are mastered. These developments, it should be noted, are difficult to fit within the scheme of the school grammar curriculum.

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[38] Donald R. Bateman and Frank J. Zidonis, *The Effect of a Study of Transformational Grammar on the Writing of Ninth and Tenth Graders*, NCTE Research Report No. 6, Champaign, Ill., 1966, xiv-40p.

When one turns to written language in particular, training, so as to form the necessary automatic associations, may become important. Also in writing, the necessity of acquiring those rules which have no phonetic equivalents must be noted. Finally, it must be remarked that a child's competence, that is, his intuitive knowledge, is not always reflected in his performance. The factors other than grammatical competence that govern performance are poorly understood but are probably related, at least in part, to practice and discipline. It is suggested that one of the teacher's major contributions to a child's grammatical mastery lies in the bringing of grammatical performance closer to grammatical competence.

v. Cognitive Development and Grammatical Mastery

One of the objectives of the present research project is the specification of stages of psychological readiness deemed necessary for the acquisition of the specific structures of grammar.

Psychological readiness is a concept usually used to describe a state which a child must reach in order to benefit in a specified way from learning experiences. The state of readiness may be a function of the degree of physical maturation as in readiness to learn how to walk. Alternatively, it may be a function of both motivation and previous learning as in the case of readiness for learning mathematics.

Psychological readiness may also refer to affective factors. A child's attitude towards a learning task will definitely influence his psychological readiness to master it.

Readiness need not only refer to minimum stages of development. There is an age beyond which the effects of development make language acquisition very difficult. In addition, the interests and social perceptions of children make them more ready to learn certain things than older individuals.

The present study is mostly concerned with cognitive readiness and its relationship to language learning. The relationship between cognition and language is complex. Opinions of different schools of psychology and linguistics vary dramatically on this issue. Some claim that the two develop as relatively independent systems. Others propose that cognitive development is shaped by language, a causal connection opposite to that implied when one asks what degree of cognitive development is required for specific grammatical acquisitions. Finally, some scholars support the position that linguistic development is based on prior cognitive development.

The debate, in which such men as Luria, Vygotsky, Piaget, Chomsky, Lenneberg, Bruner, Miller, Whorf and Sapir play prominent roles, leaves the writers in danger of having to assume the precarious role of arbitrators among giants. The research to which one may hopefully turn declares no victors. However, by limiting ourselves to the relationship between syntactic development and cognitive development, we can draw tentative conclusions and develop hypotheses applicable to our task.

The isolation of linguistic or cognitive variables from the totality of psychological functioning is, at best, justifiable only as a heuristic strategy. When doing so, one must always guard against the building of oversimplified models that fail to reflect the integral quality of psychic systems. Language development and cognitive development should not be thought of as two distinct linear movements, between which a simple causal relationship can be discovered. They form a tightly interconnected system in which the growth of each influences the growth of the other. This relationship is perhaps best expressed by Piaget's elegant phrase, a *cercle génétique*. In addition, the nature of the influence thought and language have on each other changes as the child grows. When one concentrates on early development, the evidence of the gradual evolution of symbolic functioning from sensory-motor schemata may tempt one to postulate that language is dependent on cognition. The opposite conclusion, a dependence of thought on language, is suggested by the symbolic nature of formal thought engaged in by adolescents and adults.

We shall, therefore, focus on the age group that constitutes the target population of this project. These students, varying in age, probably between eight and thirteen years, will have, if one refers to the Piagetian paradigm[39], entered the stage of concrete operations when they have reached grade four and they will be towards the end of the transition to formal operations in the last grade of junior school.

How dependent is the achievement of concrete operations on language development? There is a reasonable amount of literature attempting to answer this question but most of it relies on correlations which expose parallel developments but fail to prove causal relations. The research of Furth[40] with deaf children is of special interest because it compares three groups, deaf linguistically deficient children, normals, and linguistically normal blind children. The deaf and unimpaired reach concrete operations at comparable ages. The blind lag behind. This indicates that it is possible to reach concrete operations when one is severely handicapped linguistically and thus suggests a minimal degree of dependence of the former on the latter. Of course, it still does not tell us if, when there is no handicap, language greatly aids the attainment of concrete operations.

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[39] Jean Piaget and Barbel Inhelder, *The Psychology of the Child*, New York, Basic Books, 1969, p. 69.

The same series of studies[41] indicate that as the child approaches formal operations, the facilitating effect of language becomes much more pronounced.

We will now examine the possible relationships between cognition and some of the specific linguistic developments that occur during the early school years.

The increase in the complexity and length of sentences is one of the major indices of language development during childhood. This growth correlates very well with verbal measures of short-term memory. One may thus easily conclude that it is the child's increased capacity to handle words in his immediate memory that allows the increase in sentence length. However, when one looks more closely at the nature of short-term memory, one is led to postulate that it is the child's increased capacity to *chunk* words into units, rather than some biological increase in memory, that is reflected in the larger verbal memory. Chunking words into larger units is exactly what is occurring when the length of linguistic unit is increased. Thus, the impressive correlations between increase in verbal memory and increased length of linguistic unit may be due to their being two manifestations of the same development. Research by Olson[42] using non-verbal memory as a controlling variable supports this interpretation.

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[40] H.G. Furth, *Thinking Without Language: Psychological Implications of Deafness*, New York, Free Press, xvi-236p.

[41] H.G. Furth and Youniss James, "Formal Operations and Language", in *International Journal of Psychology*, 1971, Vol. 6, No. 1, p. 49-64.

An alternative explanation for increased sentence length refers to the child's increasing capacity to coordinate several dimensions of a problem at once so as to form a unified conception. The relationship of this increase to the inclusion of several dimensions of a situation in one sentence has not been subject to empirical investigation.

Finally, we should note that increasing control over logical connectives probably aids in the joining of thoughts which would otherwise be stated separately.

The developments uncovered by Carol Chomsky that have been discussed in the previous section probably have little direct relationship to cognitive growth. Because these acquisitions relate to deviations from the normal patterns of grammar, they can be most parsimoniously accounted for by linguistic readiness. Because of its probabilistic superiority, a general rule will be acquired rather than the related deviant patterns. After the rule is consolidated, readiness is acquired to benefit from a sufficient number of encounters with the exceptions. While this view is consistent with the facts, it is still unverified conjecture.

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[42] Gary M. Olson, "Developmental Changes in Memory and the Acquisition of Language", in *Cognitive Development and the Acquisition of Language*, edited by T.E. Moore, Academic Press, New York, 1973, p. 145-158.

The late acquisition of the passive voice has been related to achievement of operational reversibility[43]. The conservation of meaning in reversed order of passive sentences was seen as being analogous to the conservation of quantity in reversible physical operations. However, empirical investigations of this hypothesis have yielded ambiguous results.

To explain the development of the use of connectives, one can turn with reasonable confidence to cognitive growth[44].

The contradictory conjunctions express awareness of a contradiction of a general proposition. The child's ability to form a general proposition gradually increases during the elementary school years and this growth is neatly paralleled in his developing ability to properly employ contradictory conjunctions.

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[43] E. Scholnick and M. Adams, "Relationship Between Language and Cognitive Skills: Passive Voice, Comprehension, Backward Repetition and Matrix Permutation", in *Child Development*, 1973, Vol. 44, No. 4, p. 741-746.

[44] Karl, *Op. Cit.*

The development of the word *because* again parallels cognitive acquisitions in the realm of causality. However, one must note that the source of much of Piaget's data relative to causality is children's language and we may thus be dealing with a circular proof.

Teachers often find themselves correcting "bad" grammatical habits that seem to result from local dialects rather than immaturity. The question may be raised as to when the child is cognitively ready to benefit from these corrections. If a child has internalized a rule he is probably intellectually capable of mastering a similar, but more academically acceptable counterpart. However, these poor habits are often acquired at home or in the local neighbourhood of the child. Corrections may be viewed as a threat to identification with that community. The child may be disturbed at being told, in effect, that the language of his family is inadequate. In these circumstances, psychological readiness must be analyzed in sociological and affective terms.

In conclusion, it seems unlikely that a clear step-by-step scheme of psychological states of readiness for acquiring specific language structures can be detected. Indeed, cognitive development does not occur in a stepwise manner but proceeds in ameboid-like fashion reaching out with pseudopods (*vertical decalage*) in certain domains, lagging behind in others, progressing in general and occasionally retreating. Even in those instances where parallel cognitive and linguistic developments can be found, the nature of their relationship is difficult to prove. The literature which attempts to investigate the dependence of grammar development on prior cognitive developments is very limited in quantity. This leaves the would-be investigator great scope for adventurous theoretical speculation but few solid anchor points. One is perhaps better advised to search for the average ages of acquisitions which would then be taken as indications of ages of readiness than to base one's search on an assumed dependence of grammar development on prior cognitive developments.

vi. Mastery and Knowledge in Grammar

The previous sections explored the development of grammatical mastery and its relationship to psychological readiness. Before turning to a similar discussion of grammatical knowledge we wish to make certain observations regarding its relationship to grammatical mastery. The distinction between grammatical mastery and knowledge was made in a previous section of this chapter. Mastery was described as linguistic ability; that is, the intuitive, unconscious ability to use grammar appropriately. Knowledge was defined as metalinguistic ability; that is, conscious understanding of the formal nature of grammar. We wish now to analyze some aspects of the relationship between mastery and knowledge in grammar.

We may begin by asking if we are speaking of the same grammars when we speak of mastery and knowledge. The most likely answer is that the grammars are equivalent only to the extent that linguists have been successful in their descriptions of grammar. The structure of the grammar on which intuitive mastery is based is the structure about which modern linguists wish to be knowledgeable. If one were to teach knowledge which is veridical from the point of view of the linguist, one would be teaching a native speaker knowledge of the nature of the system on which his intuitive mastery is based. This relationship between mastery and knowledge is similar to the situation found in the psychological sciences. The student of psychology wishes to discover knowledge of the system that he intuitively and unconsciously employs in thought.

We may continue by asking to what extent the development of mastery and knowledge are dependent on each other and to what extent they influence each other. It is unlikely that the development of mastery would normally be dependent on the prior acquisition of knowledge. The average native speaker of a language has mastered the grammar of his tongue and yet has little understanding of the formal nature of the grammar that he so expertly employs. Indeed, linguists are still striving to develop adequate formal descriptions of various advanced aspects of grammar over which children, who have not yet entered school, already have considerable mastery.

However, the fact that mastery need not depend on knowledge does not rule out the possibility of mastery being influenced by knowledge. The assumption of that influence has been an important element in the rationale for the teaching of formal grammar[45].

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[45] The understanding of grammar as a natural phenomenon central to human life is also an objective of formal grammar instruction.

The assumption that the teaching of formal grammar influences the grammar usage displayed by the students has been questioned in the light of a series of empirical investigations in the teaching of English which failed to find such an effect[46].

This failure to prove the effectiveness of formal grammar teaching in improving the mastery of grammar has been used as a rationale for dropping the former from the curriculum. However, it is also possible to conclude that the fault lies in the type of grammar taught or in the method of teaching or a combination of these and/or other factors.

Most of the research relevant to the efficacy of formal grammar teaching has been carried out with classes learning traditional grammar. The weakness of traditional grammar was noted in the second section of this chapter. If traditional grammar represents a system that is substantially at variance with the true nature of the language, then one can readily understand its failure to influence the child's use of the language. One can imagine the consternation of a young student, taught that a verb describes an action, trying to apply the rules for verbs to the appropriate words in the following sentence:

(15) *The dance was enjoyable.*

When, however, one bases one's teaching on what is believed to be a more accurate grammar, one would have more reason to expect such teaching to influence usage. Mellon[47] tried instruction based on the transformational theory of grammar. He concentrated on sentence-combining transformations and found that his instruction was rewarded with an increase in the use of these transformations among the seventh graders he taught. This suggests that rather than dropping the teaching of grammar, schools should consider changing the grammar that is taught.

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[46] Andrew Wilkinson, *The Foundations of Language*, London, Oxford University Press, 1971, p. 32-34.

Another possible interpretation of the failure of grammatical knowledge to improve grammatical mastery is that the method of teaching formal grammar does not facilitate the transfer of the metalinguistic understanding gained to linguistic performance. Research based on this point of view was undertaken by Landa[48]. He analyzed the application of a grammatical rule into two sets of operations. The first set is one of identifying those situations to which the rule applies. The second is that of actually performing the actions specified by the rule. For example, the application of the rule that specifies that an adjective must reflect the gender of the noun it modifies, requires two sets of operations. The first set will determine if the word in question is indeed an adjective. The second series of actions will be those of actually applying the rule to the word that has been identified as an adjective.

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[47] John C. Mellon, *Transformational Sentence Combining*, NCTE Research Report No. 10, Urbana, Ill., 1969, ix-114p.

[48] Landa, *Op. Cit.*

Landa's research revealed that it is the failure to perform the first set of operations that is often responsible for improper application of rules, that is, he found that students rarely were capable of identifying the elements of language to which the rules they had learnt applied. These first operations are usually referred to in the western literature as the process of concept identification. The student is normally equipped for this process by the teaching of definitions. Landa postulated that knowledge of definitions is not necessarily a sufficient condition for mastery of the sometime subtle procedures involved in classification of grammatical phenomena. Thus, he undertook to write and then teach algorithms for concept identification and rule application in grammar. An algorithm is a set of procedures which, when applied to the same materials, will lead all appliers unambiguously to the same solution. They are most commonly used in computer programming but are adaptable for use in education. Landa discovered that the teaching of algorithms of identification did improve grammatical mastery. His success can be interpreted as a result of both his new method of teaching grammar and of the necessary reworking of grammatical definitions to make them precise enough to be translated into algorithms. His success, like that of Mellon, can be used as an argument for the reform rather than the elimination of formal grammar teaching.

Let us now ask the above questions in reverse order. What is the effect of mastery on knowledge?

The approaches to teaching grammar, which use the students' judgments of what words may be substituted for other words and thus form classes of words, are based on the exploitation of the advanced nature of mastery so as to further knowledge. Similarly, the use of students' judgments to differentiate between grammatical and agrammatical forms may be used to further knowledge. It is, however, necessary that the teacher pre-arrange the materials so that patterns will become apparent. Mastery does not lead to knowledge but it may be used by a knowledgeable teacher to aid the student who has only mastery in acquiring knowledge, by being led in a systematic investigation of his own mastery.

To summarize, the development of mastery does not depend on the development of knowledge in grammar or vice versa, but each is capable of influencing the acquisition of the other. Moreover, this influence is most likely to occur as a result of the skillful intervention of the grammar teacher.

vii. The Acquisition of Grammatical Knowledge

Although the acquisition of knowledge of grammar has not been a popular topic for research, there have been some investigations in this area from which one can draw tentative conclusions.

These investigations share a view of grammatical knowledge, or, as is often referred to in this literature, metalinguistic understanding, as being a function of the child's emerging capacity to reflect on, and be aware of, the language he has been employing. This capacity requires that the child abstract the nature of words as a group of symbols per se from their roles as representatives of reality. For example, the child must see that the word *dog* belongs to the group of phenomena known as *words*, as well as the category of phenomena known as *animals*. Once the child begins to achieve this awareness of words as entities in themselves, he can begin to develop his knowledge and understanding of the formal nature of the system of language of which those words are a part.

The majority of preschool-age children have not developed this awareness of words as separate symbolic entities. They view individual words as being inseparable from the realities which they represent. They also view words in sentences as being fused together as inseparable parts of sentence meaning.

These phenomena have been remarked upon by several investigators. Vygotsky[49] states that "semantically the child starts from the whole, from a meaningful complex and only later begins to master the separate semantic units, the meanings of words, and to divide his formerly undifferentiated thought into units".

More evidence of the fusion of words in sentences comes from recent experiments by the Genevans Sinclair and Papandropoulou[50]. They revealed that when asked for a long word,a child of almost seven years may give a sentence such as *I go home and I take my shoes off.* Sinclair, *et al.*, further noted that the children, when asked for a long word, often named a long object or a lengthy journey. This latter finding illustrates young children's confusion of words with objects they represent.

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[49] L.S. Vygotsky, *Thought and Language*, Cambridge, Mass., M.I.T. Press, 1962, p. 126.

[50] Hermine Sinclair and Joanna Papandropoulou, "What is a Word", in *Human Development*, Vol. 17, 1974, p. 241-258.

The confusion of words with what they represent was further illustrated by Sinclair, *et al.*, when they reported that function words, such as *the* or *an*, are considered by young children not to be whole words at all because they do not refer to anything.

The fusion of word and referent was also discovered in a Roumanian experiment. Children were asked to count the nouns in a simple sentence. From the results, Tucicov-Bogdan[51] demonstrated that young school-age children believe that the word *villages* contains several nouns. This is consistent with a noun being a person, a place, or a thing. It is only the older child that can conceptualize *villages* as one noun referring to several concrete entities.

The above and similar studies performed in the United States[52], indicate the age of emergence of word awareness is between five and seven years.

Sinclair[53] differentiated this development of word awareness into a sequence of steps that trace the evolution of metalinguistic knowledge both before and after the emergence of word awareness. The first steps are characterized by the failure to separate word from meaning. They extend until age six or seven.

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[51] Ana Tucicov-Bogdan, "Abstraire et concrétiser dans l'apprentissage de la grammaire", in *Revue Roumanienne de Sc. Soc. Psy.*, Vol. 9, No. 2, p. 211-222.

[52] Marjorie H. Holden, *Metalinguistic Ability and Cognitive Performance in Children from Five to Seven*, ERIC Reports No. ED078436, 1973, 1-7p.

[53] Sinclair, *et al.*, *Op. Cit.*

By age seven to eight, however, the child can fully separate the word from its referent but still does not view the word as a linguistic element. Words are considered as representatives of a system of things to which they refer. The child's conception of the relationships of words to each other is based on the relationships between the things the words refer to and not on the places the words hold in the system of words called language. In other words, in the mind of the child at this stage, words are viewed as entities in themselves but these entities are linked through their meanings to the world they represent and not through their function to the world of linguistics.

One can derive pedagogical implications from the above for the teaching of grammar to children at this stage.

The type of definition which differentiated parts of speech by their semantic function should be consistent with the level of metalinguistic awareness displayed by this group. The choice of a traditional style grammar for instruction would thus seem appropriate if one wishes to teach grammar to children younger than ten years of age. However, it must be noted that numerous traditional grammatical concepts are defined in terms of interrelationships among words and not in terms of what those words represent. These types of concepts would, on the basis of Sinclair's work, seem inappropriate for children younger than ten years.

Children of eleven years and older may have developed to a later stage. They may perceive words as being parts of a linguistic entity. They would thus define them in terms of their functional interrelationships. This development would seem to open the door to the teaching of grammar as an academic discipline.

We turn now to the relationship of the development of grammatical knowledge and psychological readiness or, to be more specific, cognitive development.

The first dramatic development in grammatical knowledge is the separation of a word and its referent. If one adopts the perspective of the Piagetian paradigm[54], one is likely to notice that the ages at which this development is most likely to be attained are also the ages at which concrete operations often make themselves manifest. The contemporaneous nature of their appearance suggests a possible dependence of one on the other. However, it does not suggest which development is dependent on the other. While it is not uncommon to discover cases in which the linguistic awareness precedes the attainment of concrete operations, the opposite order of appearance is very rare indeed. This would be consistent with an interpretation of the cognitive gain being dependent on a prior attainment of word awareness. Nevertheless, the nature of concrete operations is such that a theoretical explanation of their supposed dependence on word awareness would strain the intellectual agility of most theoreticians. A more credible interpretation would be that which postulates that both concrete operations and word emergence are dependent on some third underlying development which precedes them both.

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[54] Jean Piaget, *Six Psychological Studies*, New York, Vintage Books, 1967, p. 41-48.

The emergence of the more advanced stage of linguistic awareness in which words are considered as elements of a linguistic whole has not been linked to a parallel cognitive development. It is interesting to note that this development only just precedes the attainment of formal operation.

In conclusion, our position seems to be similar to that suggested by our comparison of the acquisition of grammatical mastery and cognitive development. Given our present state of understanding, there is little reason to believe that the elaboration of sequences of cognitive development on which metalinguistic development would depend would, at the present moment, be a useful exercise if one's primary interest is the pedagogical application of that information.

viii. The Choice of a Research Problem

This section will outline the rationale on which our choice of direction for empirical research is based. The breadth of the topics with which we are concerned made it necessary that we make choices among the possible areas which we could have submitted to empirical investigation.

Our first decision was to concentrate on the acquisition of grammatical knowledge rather than mastery. This choice was made for two reasons. First, knowledge is closer to what is being taught in the classroom. As we indicated in section iv of this chapter, the review of the literature related to the acquisition of grammatical mastery leads us to the conclusion that the acquisitions of mastery of new grammatical structures that occur between grades 4 and 8 are unlikely to be related to the direct intervention of the grammar teacher.

The second reason is that the acquisition of knowledge has been ignored in the scholarly literature, especially when one considers the grammar taught in the schools. On the other hand, the acquisition of mastery has been relatively well-researched.

Our second decision was to favour the collection of descriptive data on the acquisition of grammatical knowledge, rather than to test a cause-and-effect relationship between metalinguistic development and some psychological variables normally associated with readiness. Although the latter type of study would not preclude the collection of descriptive data, the controls and allocation of resources necessary for such a study would require the sacrifice of descriptive generalizability. Because extensive descriptive data on grammatical knowledge development does not exist, we decided to make its collection our objective. That is, we decided to discover what exists before trying to prove theories of why it exists.

Finally, we chose to concentrate our descriptive study of the acquisition of grammatical knowledge on the learning of the concepts of grammar. Grammar can be viewed as a collection of systematically interrelated concepts and rules. By concepts, we mean the various categories of elements into which the grammatical universe can be divided. Examples of concepts are: *noun*, *verb*, *sentence*, *clause*, etc. The rules are prescriptions for the operations which must be carried out on the linguistic elements so as to generate grammatically correct sentences.

We chose to study concept attainment both because it is a central element in the acquisition of grammatical knowledge and because it is a prerequisite for the understanding and application of grammar rules[55]. One cannot apply a rule relating a verb in the past tense to its subject unless one has first attained the concepts *verb*, *past tense*, and *subject*. Concept learning thus constitutes a large portion of readiness for rule learning.

Our choice is supported by the results of the analysis of L.N. Landa[56] cited earlier in this chapter. He discovered that one of the most frequent obstacles to correct application of knowledge of grammatical rules was the inability of the students to identify the phenomena to which the rules apply.

We further decided to investigate at the same time the sequence in which the concepts are being taught.

In conclusion, we decided to attempt to provide an accurate description of the level of knowledge of grammatical concepts found at each grade level from grades 4 to 8. It was hoped that this information could be used to ascertain at which grades the students were benefitting most from instruction in an individual concept and thus infer stages of readiness for grammar concept learning.

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[55] R.M. Gagné, "The Learning of Principles", in A.J. Klausmeier and C.W. Harris (Eds.), *Analyses of Concept Learning*, New York, Academic Press, 1966, p. 94.

[56] Landa, *Op. Cit.*

ix. The Nature of a Concept

The content of grammar can be viewed as a collection of concepts and rules. As we have indicated in the preceding section, we have undertaken to measure the degree of acquisition of grammar concepts displayed by students at the junior and intermediate grade levels. Accordingly, we now turn to discussions of the psychological nature of a concept, the idiosyncracies of grammar concepts, and Klausmeier's theory of conceptual development.

A concept is a category into which people group various elements of the universe because of some properties which those elements share. We have, for example, the concept of *solid* which is a category within which we group those materials which share the properties of constant shape and volume. Similarly, *noun* is a concept which traditional grammarians use to group those words which share the property of referring to a person, place, or thing. Psychologists use the word *attributes* instead of properties when referring to the characteristics of a particular concept.

Bourne[57] distinguishes between the *relevant* and *irrelevant* attributes of a concept. Those attributes which allow us to distinguish an example of a concept from a non-example are called the relevant attributes of that concept. Those attributes which belong to some exemplars of the concept but are not critical to deciding on membership in the group that forms the concept are called irrelevant attributes. For the concept *noun*, the property of being longer than four letters is an irrelevant attribute. The property of referring to a place is a relevant attribute.

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[57] Lyle E. Bourne, *Human Conceptual Behavior*, Boston, Allyn and Bacon, 1966, p. 3.

Bruner[58] makes the distinction between *criterial* and *defining* attributes. The attributes an individual uses to distinguish an exemplar from a non-exemplar of a concept are not always those used by society or those which have ecological validity. A young child may use the attribute of *four-leggedness* to decide which animals belong to the concept *dog*. This not only conflicts with society's idea of the concept *dog* but is also ecologically invalid as the child who is allowed to interact with a lion as if it were a dog would soon discover. Bruner refers to those attributes used by an individual to decide on what belongs to and what does not belong to a certain concept as criterial attributes. The attributes imposed by society or nature are called defining attributes.

The process of learning about a concept can be viewed as an attempt to bring an individual's criterial attributes for that concept closer to the environment's defining attributes for that concept.

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[58] Jerome S. Bruner, J.L. Goodnow and G.A. Austin, *A Study of Thinking*, New York, John Wiley and Sons, 1956, p. 30.

Concepts differ in the degree to which defining attributes can be unambiguously specified. Klausmeier[59] refers to the concept *beauty* as one for which there is little agreement as to the defining attributes. The word *validity* is used to indicate the degree of agreement found among experts in deciding the defining attributes of a concept. *Beauty* is a concept of low validity; *water* is a concept of high validity.

If the defining attributes specified by the experts correspond to those imposed by nature they are said to have high *ecological validity*. The defining attributes for water do reflect the nature of water and can thus be referred to as ecologically valid. The ecological validity of a concept is, in other words, the degree of scientific truth of its definition.

Concepts can be described in terms of their hierarchical interrelationships. The concept *word* is a broad concept including, among other elements, the members of the group which forms the more restrictive concept *noun*. The concept *word* is therefore referred to as being *supraordinate* to the concept *noun* and *noun* is considered to be *subordinate* to the concept *word*. Appendix A is a hierarchy of concepts in grammar.

Concepts which are not related vertically can, in some instances, be described as having coordinate relationships, an example of this would be the oppositional relationship between the concepts *good* and *bad*.

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[59] Klausmeier, *Op. Cit.*, p. 211.

To summarize, concepts are classifications based on shared attributes. Attributes can be divided into those which are relevant and those which are irrelevant to specifying the concept. Attributes can also be divided into those which are criterial for an individual and those which are defining for the environment. Concepts can be interrelated through supraordination, subordination and coordination.

We will now examine some of the properties of concepts that are found in the world of linguistics. Our discussion of mastery and knowledge can now be expanded. The mastery of a native speaker is based on the ecologically defining attributes of grammatical concepts. The attributes of a concept that are defining to a linguist are the results of an attempt to gain knowledge of those that are defining in the mastery of grammar. We thus have the ironic situation in grammar teaching in which the child is trying to bring the criterial attributes of a concept in his store of knowledge in line with the defining attributes as specified by linguistics. However, those defining attributes are merely the result of the linguist's attempt to discover the attributes which are criterial to the intuitive attainment of the concept already mastered by the child.

We turn now to a brief consideration of Klausmeier's theory of conceptual development. It postulates four levels of development through which one may pass in learning any single concept. The four levels and related operations are summarized in *Figure 1*. The first two levels, i.e., the concrete level and the identity level, are not relevant to our purposes. The last two levels were introduced at the

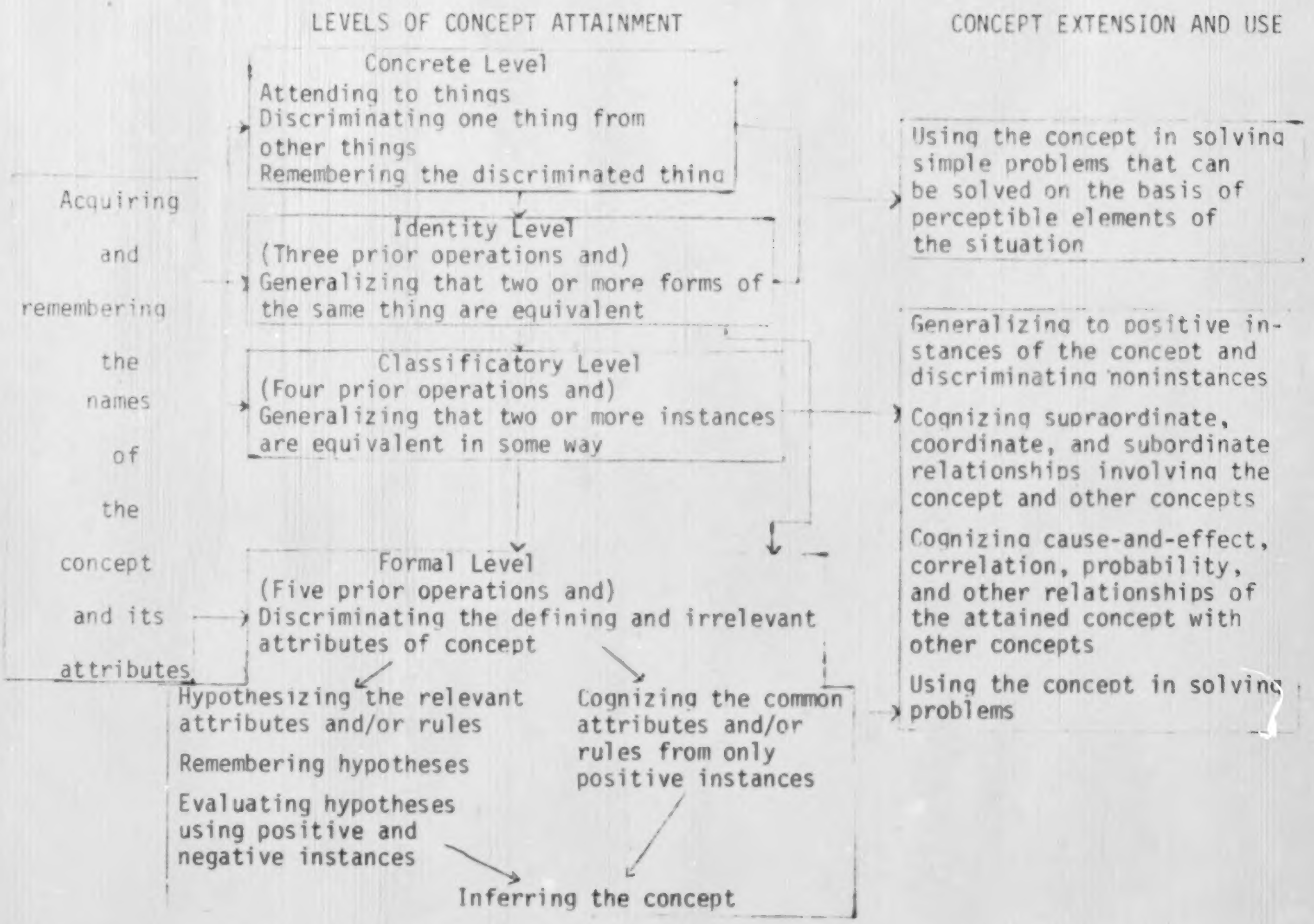
LEVELS OF CONCEPT ATTAINMENT
CONCEPT EXTENSION AND USE
Acquiring and remembering the names of the concept and its attributes
Concrete Level
Attending to things
Discriminating one thing from other things
Remembering the discriminated thing
Identity Level
(Three prior operations and)
Generalizing that two or more forms of the same thing are equivalent
Classificatory Level
(Four prior operations and)
Generalizing that two or more instances are equivalent in some way
Formal Level
(Five prior operations and)
Discriminating the defining and irrelevant attributes of concept
Hypothesizing the relevant attributes and/or rules
Remembering hypotheses
Evaluating hypotheses using positive and negative instances
Cognizing the common attributes and/or rules from only positive instances
Inferring the concept
Using the concept in solving simple problems that can be solved on the basis of perceptible elements of the situation
Generalizing to positive instances of the concept and discriminating noninstances
Cognizing supraordinate, coordinate, and subordinate relationships involving the concept and other concepts
Cognizing cause-and-effect, correlation, probability, and other relationships of the attained concept with other concepts
Using the concept in solving problems

Figure 1. Klausmeier's Model of Conceptual Learning and Development, taken from Herbert J. Klausmeier, Elizabeth Schwenn Ghatala and Dorothy A. Frayer, *Conceptual Learning and Development*, New York, Academic Press, 1974, p. 13.

beginning of this chapter; they are the classificatory level and the formal level.

Attainment of a concept at the classificatory level implies that one can accurately differentiate among those things that are and those things that are not examples of the concept. If a person reacts to examples of the concept in a consistent fashion and fails to similarly react to non-examples of the concept, attainment at the classificatory level may be inferred. In grammar, for example, a child who uses words which are nouns appropriately, that is, follows the rules for the use of nouns, and does not similarly treat non-nouns, can be said to have attained the concept *noun* at the classificatory level.

By adopting this criterion, one could be led to conclude that the school-age child will have attained the majority of grammar concepts at this classificatory level. Consider first the evidence reviewed in section iv of this chapter. It indicates that the school-age child uses the large majority of grammatical structures appropriately. To use parts of speech appropriately requires that one has intuitively, at least, distinguished between them. The intuitive ability to classify the almost unlimited individual examples of the parts of speech is proof of concept attainment at the classificatory level.

The above conclusion does not imply that the students have learnt all they can at the classificatory level. They depend upon instruction at school for the acquisition of labels to attach to the concepts they have previously mastered. This would lead one to hypothesize that a large portion of the learning of grammar concepts at school occurs through the association of labels with previously mastered concepts rather than through the assimilation of new concepts via the definitions offered in instruction.

The above hypothesized phenomenon would, of course, be limited to those concepts which, within the grammar taught, have defining attributes of sufficient ecological validity to be associated with those intuitively mastered by the child.

We have indicated above that the school can build on the intuitive knowledge of concepts which the child brings to school with him by providing labels such as *noun*, *verb*, and *clause*, that can be associated with the preformed conceptual categories. Once those labels are acquired, the school can further help by teaching the students to use the concepts acquired to understand inter-concept relationships and to solve problems. Both of these activities are, according to Klausmeier, made possible when concepts are learnt at the classificatory level.

We turn now to a consideration of a level of concept attainment that is considered by Klausmeier to be more advanced than the classificatory level. It is called the formal level. While the classificatory level requires only that a person know what is and what is not an example of the concept, concept attainment at the formal level implies that a person is aware of the basis on which membership in the concept may be decided. In other words, the person must be able to state what the relevant attributes of the concept are and be able to explain how they are used in discriminating examples from non-examples of the concept. The formal level is the level at which the person has a conscious understanding of the nature of the concepts that he employs.

The formal level of concept attainment requires that the student be capable of discriminating and naming the attributes of the concept. If a concept is defined in terms of its semantic referents, one may predict that students will be ready to acquire it at the earlier stages of word awareness as described in section vii of this chapter.

If the defining attributes of a grammatical concept are expressed in terms of its function within a linguistic system, one may predict that the concept will not be attained at the formal level until the child has reached Sinclair's last stage. In other words, readiness will not occur until at least age eleven.

Klausmeier's theory does not require that the concepts be first learnt at a lower level and then at subsequent higher levels. He maintains that some concepts will, because of their nature, be learnt only at their formal level. This is likely to be true of grammatical concepts of low ecological validity. Because they do not reflect some naturally occurring reality, they are most likely to be first learnt from the definitions provided at school and thus first learnt at the formal level.

To summarize, we have discussed a concept as a category into which phenomena may be grouped and which can be described in terms of its attributes. We have noted the special relationship that exists between the grammar concepts intuitively acquired by an individual and those formally described by the discipline of linguistics.

Klausmeier's description of levels of concept attainment was also presented. From it and the literature reviewed earlier in this chapter, we were led to conclude that the majority of grammar concepts are attained at the classificatory level before school entrance. We were also led to hypothesize that much of the grammar learning that occurs in schools consists of the association of labels with previously mastered structures rather than the assimilation of new concepts through the definitions provided.

CHAPTER THREE

DESIGN AND CONSTRUCTION OF THE TEST DE COMPREHENSION DE STRUCTURES LINGUISTIQUES

This chapter will describe the construction of the *Test de Compréhension de Structures Linguistiques* (TCSL). The test was created in response to our need to assess the degree to which the students of grades four to eight know the concepts included in the curriculum of *grammaire*.

The decision to initiate the building of the instrument was made after it was ascertained that no similar measure was already available. Because the test was to be the first of its kind, every effort was made to create an instrument that would answer not only to our specific research needs but also to those of other pedagogues and researchers in the fields of *grammaire* and conceptual development.

The first step in designing the test was the specification of the features that the test had to have if it was to be responsive to our specific research needs and also to be of general relevance.

Our first specification was that the test provide a two-dimensional measurement, the first dimension being concepts known or not known, and the second being the level of understanding characteristic of the students' knowledge of those concepts.

Another necessary feature was that the test be criterion- or domain-referenced. Every instrument must have a standard or a reference to which all subjects are compared. Most academic achievement tests use group norms as their reference points and are thus called norm-referenced tests. Our research objectives did not include the comparison of individual students relative to each other. We wished to discover whether or not the students were learning the conceptual content of grammar, rather than which students were learning it best. Our test thus had to be criterion-referenced, that is, the standard to which the students were to be compared was to be a set of predetermined behavioural criteria corresponding to various levels or aspects of understanding of the conceptual content of *grammaire*.

The third requirement of the test was that it be relevant. The domain being tested, that is, the material from which the behavioural criteria were being derived, had to be central to the objectives of our study. Therefore, it had to adequately represent the conceptual content of the *grammaire* curriculum and the relevant developmental stages of the students within that curriculum. It was obvious that no matter how well the test assessed the students' ability relative to our criteria, the relevance of these criteria would set the maximum limits for the validity of the test.

Another specification for a valid test required that it be administrable to grades four to eight. This meant that careful checks on readability for young children were required. It also meant that the difficulty level needed to be such that it neither tired and discouraged grade four candidates by being too difficult nor led to carelessness in grade eight candidates by being too easy.

We also wanted a test that could be administered, scored, and interpreted by the classroom teacher.

Our first step in meeting these specifications was the making of a choice of what material would be tested. We made a list of rules and concepts from the standard texts in grammar. Twenty-seven concepts from that list were chosen to be included in the test. The choice was made on the basis of the concept's frequency of occurrence in grammar texts, frequency of use in the rules of grammar, and frequency of use in the definitions of other concepts. The twenty-seven concepts are listed with their code number in *Table 2*.

Behaviour that reveals knowledge of these concepts was to be the criterion against which our students were to be tested. This, however, is a one-dimensional criterion. We needed a method of testing this knowledge that would add the second dimension of depth of understanding within each concept.

In other words, we had to specify the tasks that the testees were to perform relative to each of these concepts so as to reveal their level of conceptual understanding at each grade level. For this purpose, we turned to a paradigm for testing concept attainment that was developed by Frayer and associates at the Wisconsin Center for Research and Development in Education[60]. The paradigm is based on Klausmeier's model of conceptual development[61]. It lists twelve tasks that a student can be asked to perform relative to each concept being tested. We

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[60] Dorothy Frayer, Wayne C. Fredrik and Herbert J. Klausmeier, *A Schema for Testing the Level of Concept Mastery*, Working Paper No. 16, Wisconsin Research and Development Center for Cognitive Learning, University of Wisconsin, Madison, Wisconsin, 1969, vii-32p.

[61] Herbert J. Klausmeier and Elizabeth Schwenn Ghatala and Dorothy A. Frayer, *Conceptual Learning and Development*, New York, Academic Press, 1974, vii-273p.

Table 2. The Concepts Included in the Test de Compréhension de Structures Linguistiques.

1. Adverbe
2. Adjectif possessif
3. Adjectif qualificatif
4. Adjectif démonstratif
5. Adjectif numéral
6. Nom
7. Pronom personnel
8. Pronom possessif
9. Pronom démonstratif
10. Pronom relatif
11. Verbe
12. Verbe d'état
13. Verbe d'action
14. Temps composé
15. Conjonction
16. Temps présent
17. Temps passé
18. Temps futur
19. Proposition
20. Proposition indépendante
21. Proposition principale
22. Proposition subordonnée
23. Sujet
24. Complément direct du verbe
25. Attribut
26. Complément indirect du verbe
27. Complément circonstantiel du verbe.

decided to adopt eleven of those tasks[62].

The tasks are summarized in *Table 3*. They are designed to assess different aspects of the students' knowledge of each concept.

Although the tasks are numbered from one to eleven, their order is not meant to reflect their relative difficulty.

The lowest level of concept attainment which interests us is the classificatory level. It is the level at which Tasks 3, 4, and 5 are aimed.

They test a student's capacity to say which words are examples of a concept and which are not. That skill is the essence of having attained a concept at the classificatory level. Because the name of the concept must be used to ask the questions, students must also know the names of the concepts, a skill not integral to concept attainment at the classificatory level.

In interpreting successful performance of these three tasks, one may unambiguously conclude that the concept in question has been attained at the classificatory level. Because knowledge of the label is necessary for these tasks, one cannot attribute failure to perform them to failure to attain the concept at the classificatory level. One can, however, conclude unambiguously from the inability to perform

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[62] Upon examination, it became apparent that Frayer's eleventh task was not suitable for our purposes. That task required that the student identify a concept that is subordinate to the concept being tested. The concepts in our study had subordinates that were either too obvious or too obscure to facilitate useful testing. It was thus decided to test our students' ability to perform only the eleven remaining tasks.

Table 3. Eleven Tasks that Test Aspects of Concept Attainment**.

Task Number	Given the	the student can select the	Prototype of Item Stem
1	name of an attribute	example of the attribute.	*Which is* name of an attribute?
2	example of an attribute	name of the attribute.	Example of an attribute *is an example of:*
3	name of a concept	example of the concept.	*Which of these is* name of concept?
4	name of a concept	non-example of concept.	*Which of these is NOT* name of concept?
5	example of a concept	name of the concept.	Example of concept *is an example of:*
6	name of a concept	name of the relevant attribute of the concept.	*What is always true about* name of concept?
7	name of a concept	name of the irrelevant attribute of the concept	*What is NOT always true about* name of concept?
8	definition of a concept	name of the concept.	Definition *is called:*
9	name of a concept	definition of the concept.	*What is the meaning of* name of concept?

(continued)

Table 3. (continued)

Task Number	Given the	the student can select the	Prototype of Item Stem
10	name of a concept	name of the supraordinate concept.	Name of concept *is a kind of/ use of/ part of*:
11	names of two concepts	statement which shows the relationship between them.	*Which is true about* name of concept and another concept?

*Adapted from: Golub, L.S., W.C. Fredrick and M.L. Harris, *Measuring Language Arts Concept Attainment: Boys and Girls*, Madison, Wisconsin, Wisconsin Research and Development Center for Cognitive Learning, Technical Report No. 199, 1971, p. 4.

**Please see Appendix for examples of actual questions based on these tasks. Note that the second half of the question number in Appendix C refers to the appropriate task numbers listed above, e.g., question 1-7 is an example of a task 7 question.

these three tasks that the concept has not been attained at the formal level.

Tasks 6 and 7 probe deeper to reveal whether the child is aware of those properties used in deciding on membership in the group that comprises the conceptual category. In other words, he must know not only whether a word or structure is an example of a grammatical concept but also why it is to be considered an example of that concept. This ability is intrinsic to concept understanding at the formal level.

The next two tasks, 8 and 9, are closely related to 6 and 7 but require knowledge of precise definitions of the concepts. They must be interpreted with some caution because they may be influenced by the memorization of definitions. However, they are used in conjunction with Tasks 6 and 7 to test concept attainment at the formal level.

The remaining four tasks do not test concept attainment as such, but assess ability to perform tasks closely related to the attainment of the concepts. Tasks 1 and 2 assess the child's ability to discriminate and verbally label the attributes that are used in defining the concept. This ability is prerequisite to learning the concept at the formal level. The concept *pronom possessif*, for example, can be understood only if the child understands the attribute possession or ownership.

Tasks 10 and 11 test concept usage. They assume concept attainment at, at least, the classificatory level. They extend the assessment by examining whether the child can use the concepts to form rules with other concepts as in Task 11 or to conceptualize the hierarchical relationships it may have with other concepts, specifically those supraordinate to it, as in Task 10.

We thus had subject material to be tested arranged in a two-dimensional array: twenty-seven concepts to be tested and eleven tasks that the students could be asked to perform with each concept.

It was decided that one question would be written for each task for each concept, thus creating an item pool of 297 questions. We thus would have an instrument that reported results in a two-dimensional matrix (see *Figure 2*), with tasks listed across the horizontal axis and concepts down the vertical axis. For individuals, each cell would be a *0* or a *1* score. For groups, each cell would contain a group mean for the corresponding question. By totalling across the rows, average concept scores could be estimated. By totalling down the columns, average task scores could be obtained.

A test composed of all the items could only be given to an individual student in several sittings. However, because we intended only to compare group performance, we planned to employ a multiple matrix sampling procedure which would allow simultaneous use of all questions.

The use of a multiple matrix sampling paradigm allows one to divide the test into several subtests. Different samples from the target population each write only one of the subtests. As long as all the subtests are written by at least one adequate sample from the population, one may infer population parameters on all the subtests, and thus on the whole test. For example, if the test is split in two and two

		TASKS											TOTAL SCORES FOR CONCEPT
		1	2	3	4	5	6	7	8	9	10	11	
	1												
	2												
	3												
	4												
	5												
	6												
C	7												
O	8												
N	9												
C	10												
E	11												
P	12												
T	13												
S	14												
	15												
	16												
	17												
	18												
	19												
	20												
	21												
	22												
	23												
	24												
	25												
	26												
	27												
TOTAL SCORES FOR TASKS													

Figure 2. Item Matrix of Individual or Group Scores on Single Items.

representative samples are drawn from the population, one can allow each sample to write a different half of the test. The first sample, being representative of the population, allows one to infer population parameters on the part of the test that they wrote. Similarly, one can infer population parameters on the remainder of the test from the performance of the second sample. Thus one has an estimate of population standing on the entire test without any one person having written the entire test.

Having specified our requirements and having chosen a paradigm to answer these requirements, we proceeded to compose the questions.

ii. The Writing of TCSL

Figure 1 summarizes the procedure followed in the construction of the instrument.

The writing of questions and the revision thereof was carried out in close collaboration with a group of teachers.

Before actually writing any questions, an analysis of each of our twenty-seven concepts had to be undertaken. Relevant and irrelevant attributes were listed, widely accepted definitions were collected, and rules governing the concept interrelationships were noted. A hierarchy to be used in assessing the subordinate-supraordinate positions of our concepts relative to each other and to other grammar concepts was designed. That hierarchy can be found in Appendix A.

The results of concept analyses were scrutinized by a committee of practicing teachers before being submitted to the persons responsible

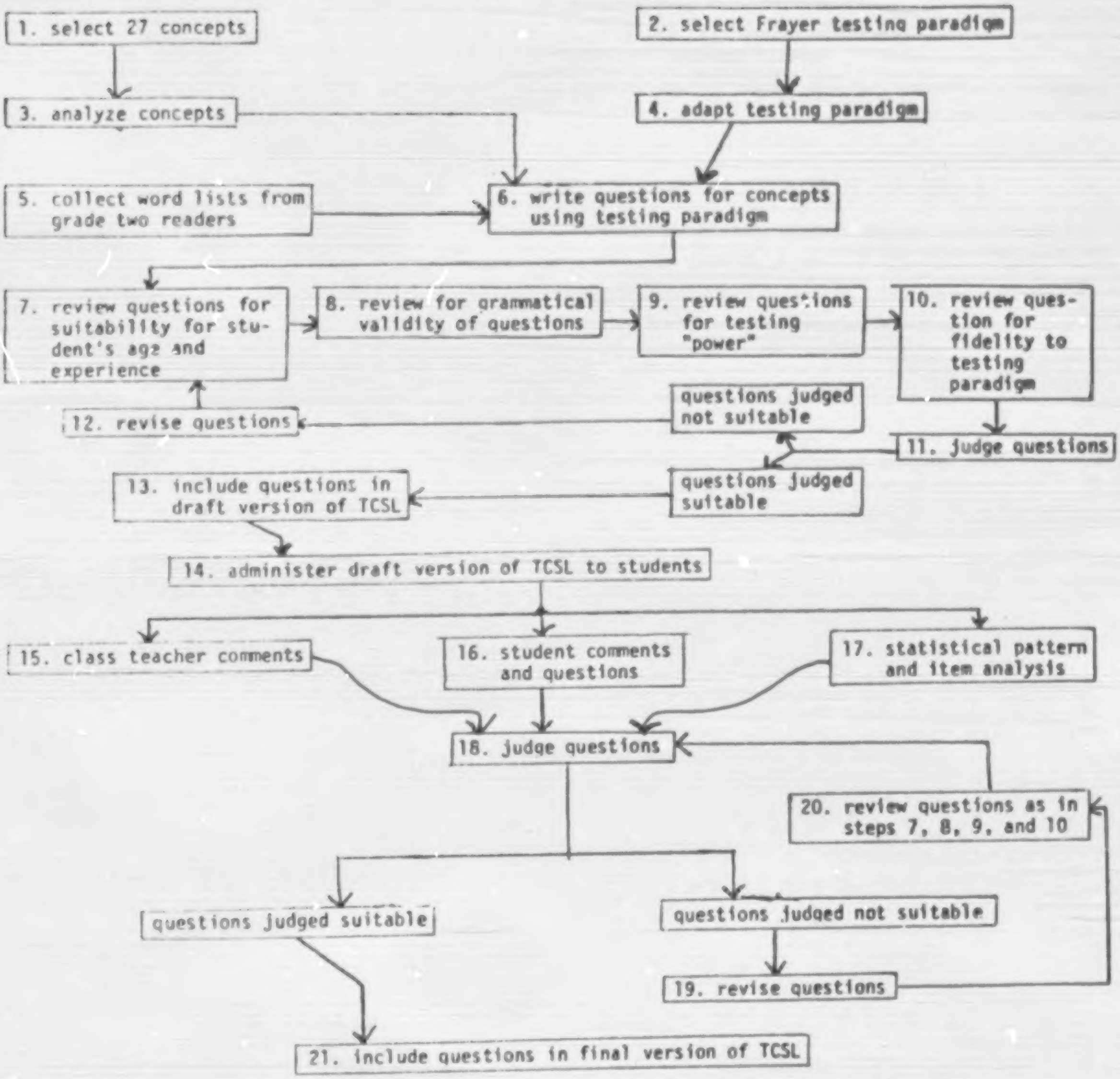
1. select 27 concepts
2. select Frayer testing paradigm
3. analyze concepts
4. adapt testing paradigm
5. collect word lists from grade two readers
6. write questions for concepts using testing paradigm
7. review questions for suitability for student's age and experience
8. review for grammatical validity of questions
9. review questions for testing "power"
10. review question for fidelity to testing paradigm
questions judged not suitable
12. revise questions
11. judge questions
13. include questions in draft version of TCSL
questions judged suitable
14. administer draft version of TCSL to students
15. class teacher comments
16. student comments and questions
17. statistical pattern and item analysis
18. judge questions
20. review questions as in steps 7, 8, 9, and 10
questions judged suitable
questions judged not suitable
19. revise questions
21. include questions in final version of TCSL

Figure 3. Test Construction Procedure.

for the writing of the questions.

Unambiguous definitions were not always available for concepts such as *proposition* but the committee chose the definitions most likely to have been taught to the students.

So as to increase the readability of the questions to be written, word lists were made from the contents of grade-two readers in the hope that they would present no difficulty to grade-four students.

A team of item writers was hired and trained to write questions based on the tasks and concepts. All members of the team had experience in teaching at the junior and intermediate grade levels.

The results of the concept analysis were provided to these item writers. They were also supplied with the word lists. Writers were instructed to avoid sentences that were syntactically complex and to design the questions so that the behaviour specified in the schema would be the central controlling factor in each question. Questions that depended on general knowledge or reasoning power were to be avoided. After several group practice sessions, each item writer proceeded to write a portion of the questions.

The completed questions were then submitted to a process of review and revision. The first step in that process was the review of the questions by the item writer himself in conjunction with the research officer. The questions were then read and commented upon by five reviewers not otherwise associated with the creation of the instrument. Three of these reviewers were teachers experienced in giving grammatical instruction at the grade levels of the target population.

The remaining two reviewers were university professors specializing in the pedagogy of French.

The revised questions were then submitted to two persons who had been trained in the theory underlying the Wisconsin schema but who had not been involved in the process of test construction. The items, identified only by code numbers, were classified according to which task level of which concept the reviewers believed they were intended to test. The independent judgments of these two readers were then compared with the intentions of the item writers and agreement was taken as an indication of content validity.

Ambiguity was found in only a few questions associated with Tasks 1 and 2 where the attribute being tested was defining for more than one concept.

The 297 resulting questions were grouped together to form the pilot version of the instrument. Because of its length, the pilot test was divided into ten subtests. Questions were allocated to the subtests in a manner designed to maximize the extent to which each subtest was representative of the total instrument. The ten subtests were labelled P1, P2, ...P10.

It was decided that a shorter version of the test would be more appropriate for use with grade four students who were unlikely to have been exposed to all twenty-seven concepts that were being tested. A revised version of the test was prepared for this age group, using only those questions pertaining to the seventeen concepts that are usually found in the grade four curriculum. These subtests were labelled

P1-4 to P10-4.

To test the actual performance of the questions, the pilot version of the instrument was then administered to a sample of students in a pilot study. That study is described in the next section of this chapter.

iii. The Pilot Study

Having completed the construction of the draft test, our next responsibility was to assess its performance in a preliminary field trial, in order to ascertain what revisions were necessary.

Accordingly, the pilot test was administered to a sample of 500 students from the Ottawa area. Three classrooms from each of the five grade levels, with which we were concerned, were used. The grades four, five, and six students were taken from three schools, each contributing one class per grade. The schools were chosen from different areas of the city so as to increase the generalizability of the results. The grade seven and eight sample was chosen from one intermediate school which draws its students from diverse sections of the city.

Although the test was not designed to be written in its entirety by any one student, the necessity of performing an item analysis with the results of this preliminary study made it advisable to have each student write all 297 questions. The testing was therefore distributed over ten grammar periods, with one subtest being written every session. Each testing session was thirty minutes long.

The teacher of each class was asked to fill out a questionnaire regarding the exact curriculum she followed in teaching grammar in her class. The teachers were also asked to comment on the questions in the test and on the administration procedure followed in giving the test.

Students were allowed to ask for help if they had difficulty reading the questions, but very few readability problems appeared. Those that did become apparent led to revisions in the questions.

Because the test was administered over a ten-day period, those students who were absent for one or more of those days had to be eliminated from the sample. The size of the remaining sample at each grade level is presented in *Table 4*.

The students' responses to the questions on the test were all coded onto optical scanning forms and then mechanically transferred to computer cards. The data were then analyzed using a version of the TASPO-1[63] program that had been previously modified to accommodate the size of our item pool.

The data from individual questions were analyzed to see if they were consistent with the patterns displayed by other questions associated with the same concept and other questions related to the same task.

The statistics calculated for the individual items included difficulty, discrimination, standard deviation, point-biserial correlation coefficients with appropriate subscale scores and the whole test

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[63] *Test Analysis and Scoring Program*, developed by Michael Mackay at the Faculty of Education, University of Ottawa.

Table 4. Pilot Sample Size by Grade.

Grade	N
4	75
5	63
6	75
7	93
8	80
TOTAL	386

for both correct and incorrect choices, and item intercorrelations using tetrachoric coefficients of correlation.

The computations performed for the subscales and for the whole test included means, standard deviations, and Kuder-Richardson (formula KR_{20}) reliability estimates.

The subscales that were used were based on either groupings of items related to the same concept or groupings of items related to the same task. Thus, what we call task-based subscales are composed of one question from each of the twenty-seven concepts, all testing the same task. The concept-based subscales contain all tasks but only one concept.

All the analyses were performed separately for each grade level and then with the data from grades five, six, seven, and eight combined. Because the grade four students wrote a shortened version of the test, their results were not included in the pooled data.

The tables in Appendix B present some of the data collected. Lists of concept and task numbers are provided in *Tables B1* and B2.

The means for the whole test varied from 42.2% in grade four to 64.3% in grade eight. The reliability calculated according to the Kuder-Richardson (KR_{20}) formula varied from a low of .94 in grade four to a high of .98 in grades seven and eight. Means on concept-based subscales varied across different concepts and grade levels. The reliability of concept-based subscales also varied but was generally in the range of .60 to .75. Task-based subscales were more reliable, falling for the most part between .70 and .85.

Table B3 summarizes the results for the whole test at each grade level. *Table B4* gives the same information for all the subscales that are based on concepts. *Table B5* provides the results for the subscales based on tasks.

Questions for which the data were at variance with the patterns displayed by the appropriate task and concept subscales were considered candidates for revision. The statistics were used in conjunction with the comments of teachers and students in the pilot sample in deciding which items needed revision.

iv. Composition of the Final Version of TCSL

The revised items were distributed across nine test books. Each book was so constituted as to be maximally representative of the whole test. The test books were labelled T1 to T9. Each book had an identical cover except for the test book number. The cover can be found at the beginning of Appendix C.

Limitations of space prohibit the reproduction of the entire test within this document more than one time. Rather than present the test in the original form, we have rearranged the questions so that they are grouped by concept and ordered within a concept by ascending task number. It is hoped that this new arrangement will be of advantage when the reader is interpreting the results. The code number identifying each question consists of the concept number followed by a hyphen and then the task number.

The position of each question within the test books, T1 to T9, is revealed by *Table 5*. Each cell within the matrix that forms *Table 5* refers to the question whose code number is that cell's concept and task number. The information within each cell reveals the test book number and the question number within the test.

v. Alternative Applications of TCSL

In the preceding sections we have concentrated on the manner in which TCSL was designed to answer the research needs of the present project. The test may also be employed in the pursuit of other research objectives where the assessment of levels of grammar concept knowledge is required. In addition, the test may be employed by teachers for student assessment.

Because the test is now in the form of nine subtests, each in an individual test book, teachers may find these subtests convenient to employ for the purposes of assessing student performance. That is, they may be used for norm-referenced testing.

Accordingly, Appendix E offers a description of each test book's composition, an answer key, indices of right answer point bi-serial correlation with test book scores, item difficulty indices, and a histogram of the frequency distribution of scores on each test book. Those data are based on all students tested from grades four to eight inclusive.

If neither the entire instrument nor the subtests now constituted answer one's needs, the item pool which forms TCSL can still be used as a source for questions responsive to specific needs. Subtests

Table 5. Distribution of Questions in the Test Books.

Concept	Task 1	2	3	4	5	6	7	8	9	10	11
1. Adverbe	T1-1*	T8-4	T6-7	T4-10	T2-13	T8-19	T9-18	T2-21	T5-22	T3-28	T7-33
2. Adjectif possessif		T1-4	T8-7	T6-10	T4-13	T2-15	T1-20	T9-21	T7-25	T5-28	T3-31
3. Adjectif qualificatif	T3-1	T6-6	T1-7	T8-10	T6-13	T4-16	T2-19	T1-22	T9-24	T7-28	T5-31
4. Adjectif démonstratif	T5-1	T3-4	T2-9	T1-10	T8-15	T6-16	T4-19	T7-22	T1-25	T2-28	T7-31
5. Adjectif numéral	T7-1	T5-5	T3-7	T2-12	T1-13	T8-17	T6-19	T4-22	T2-24	T9-29	T9-31
6. Nom	T9-1	T7-3	T5-8	T3-10	T7-16	T1-16	T8-20	T6-23	T4-26	T7-30	T3-33
7. Pronom personnel	T3-3	T9-4	T7-6	T5-11	T3-13	T2-16	T1-19	T8-23	T6-26	T4-28	T2-30
8. Pronom possessif	T2-1	T3-6	T9-6	T7-9	T5-14	T3-16	T2-20	T1-23	T8-26	T6-29	T4-31
9. Pronom démonstratif	T4-1	T2-4	T9-7	T9-9	T7-12	T5-16	T3-19	T2-22	T1-27	T8-29	T6-32
10. Pronom relatif	T6-1	T4-4	T3-8	T6-12	T9-12	T7-17	T5-20	T3-22	T2-25	T1-29	T8-32
11. Verbe	T8-1	T6-4	T4-7	T3-11	T8-13	T9-15	T7-20	T5-22	T3-25	T2-29	T1-31
12. Verbe d'état	T1-3	T8-5	T6-8	T4-11	T3-14	T1-18	T9-19	T7-23	T5-26	T3-29	T2-31
13. Verbe d'action	T2-2	T1-5	T8-8	T6-11	T4-14	T3-17	T5-19	T9-22	T7-26	T5-29	T4-32
14. Temps composé	T4-2	T2-5	T1-9	T8-11	T6-14	T4-17	T3-20	T1-24	T7-27	T7-29	T5-32

Concept	Task 1	2	3	4	5	6	7	8	9	10	11
15. Conjonction	T5-2	T4-5	T2-7	T1-12	T8-16	T6-17	T4-20	T3-23	T9-25	T9-27	T7-32
16. Temps présent	T7-2	T5-6	T4-8	T2-10	T1-14	T8-18	T6-20	T5-23	T3-26	T1-30	T9-30
17. Temps passé	T9-2	T7-4	T5-9	T4-12	T2-14	T1-17	T8-21	T6-24	T5-27	T3-30	T4-33
18. Temps futur	T5-4	T9-5	T7-7	T5-12	T4-15	T2-17	T1-21	T8-24	T6-27	T5-30	T3-32
19. Proposition	T3-2	T7-15	T9-8	T7-10	T6-15	T4-18	T2-18	T7-24	T8-27	T6-30	T5-33
20. Proposition indépendante	T5-3	T3-5	T6-8	T9-10	T7-13	T6-18	T4-21	T2-23	T1-26	T8-30	T7-32
21. Proposition principale	T6-2	T5-7	T3-9	T8-12	T9-13	T7-18	T6-21	T4-23	T2-26	T1-28	T1-32
22. Proposition subordonnée	T8-2	T7-5	T5-10	T3-12	T8-14	T9-16	T8-22	T6-25	T4-27	T2-27	T1-30
23. Sujet	T1-2	T8-6	T7-8	T5-13	T3-15	T5-18	T9-20	T8-25	T6-28	T4-29	T2-32
24. Complément direct du verbe	T2-3	T1-6	T8-9	T7-11	T5-15	T3-18	T6-22	T9-23	T8-28	T6-31	T4-32
25. Attribut	T4-3	T2-6	T1-8	T9-11	T7-14	T5-17	T3-21	T4-24	T9-26	T8-31	T6-33
26. Complément indirect du verbe	T6-3	T4-6	T2-8	T1-11	T9-14	T7-19	T5-21	T3-24	T4-25	T9-28	T8-33
27. Complément circonstantiel du verbe	T8-3	T6-5	T4-9	T2-11	T1-15	T9-17	T7-21	T5-24	T3-27	T4-30	T9-32

*The first number refers to the test book number, the second number to the question number in that book; thus T8-30 refers to questions 30 in book T8.

composed of selected items appropriate for specific objectives can be prepared. The items of high discriminatory power could be used to compare students. Items from specific parts of the domain could be used for teacher tests at different grade levels. Thus a teacher who had just completed the teaching of the concept *verbe* could choose to use only those items relevant to that concept. Alternatively, selected items from each concept could be used to form a diagnostic test.

The following chapter presents the methodology employed in the study which we carried out. TCSL was the major instrument utilized for that study.

CHAPTER FOUR

METHODOLOGY

The empirical portion of our study consisted of the administration of two instruments. The first enquired as to what concepts are being taught in grammar and the second assessed the degree to which these concepts are being learnt. The sample used included grades four to eight students and was drawn from a broad geographical area in Ontario. The results were used to assess the success of instruction in individual concepts at each grade level. Success of instruction was taken as an indicator of student readiness.

ii. The Instruments

Two instruments were employed in our study. The *Test de Compréhension de Structures Linguistiques*, parts T1 to T9, was used to assess the students' knowledge of the concepts. It was described in the preceding chapter.

A teacher-questionnaire was also employed. It solicited information on what course of studies was being followed and how much time was being allocated to formal grammar teaching. Teachers were asked to indicate whether their class had been taught, introduced to, or not taught each of the twenty-seven concepts included in the TCSL. The teacher-questionnaire can be found at the end of Appendix C.

iii. The Sample

The sample was drawn from the population of thirteen accessible school districts in Ontario. The unit sampled was the classroom. Accordingly, all results have been calculated on the basis of the number of subjects being the number of classes. The sampling was done independently for each grade. Fifty classes were randomly chosen from a sampling frame containing all the classes at that grade level in the French schools of the thirteen districts. The procedure was repeated five times, once for every grade. Some of the classes chosen were not actually tested because they were organized on a non-graded basis or because they had fewer than nine students.

Tables 6, 7, and *8* describe the regional composition of the sample and the sample size.

The students each wrote only one of the nine subtests. Within each class the test books were distributed in order, first T1, then T2, until T9 was reached, at which time distribution started again with T1. The subtests were assigned to the randomly ordered students until each student within a class had one subtest. No student wrote more than one of the subtests.

Each subtest was thus written by one or more students in a class. The scores on each question in a subtest were averaged across those students in a class who had written that subtest. The average scores for each question on all the subtests were then combined to provide a class record for the entire instrument. To be consistent with the use of the class as the experimental unit, these class scores were used for all subsequent analyses.

Table 6. Number of Schools in the Sample by Region.

REGION	Number of Schools
1. Carleton	12
2. Cochrane	4
3. Hearst	3
4. Kapuskasing	7
5. Kirkland Lake	3
6. Nipissing	7
7. Ottawa	21
8. Prescott-Russell	22
9. Rive Nord	5
10. Stormont, Dundas and Glengarry	14
11. Sudbury	26
12. Temiskaming	2
13. Timmins	5
TOTAL	131

Table 7. Number of Classes in the Sample by Grade and Region.

	REGION	Number of Classes					TOTALS
		Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	
1.	Carleton	6	5	4	5	5	25
2.	Cochrane-Iroquois Falls	-	4	3	4	1	12
3.	Hearst	1	1	-	1	2	5
4.	Kapuskasing	3	2	4	3	2	14
5.	Kirkland Lake	-	2	1	1	1	5
6.	Nipissing	-	2	4	1	2	9
7.	Ottawa	5	6	8	7	10	36
8.	Prescott-Russell	10	9	5	7	7	38
9.	Rive Nord	1	1	1	2	1	6
10.	Stormont, Dundas and Glengarry	5	7	3	3	1	19
11.	Sudbury	9	8	13	10	10	50
12.	Temiskaming	-	-	-	2	2	4
13.	Timmins	4	1	-	2	2	9
	TOTAL	44	48	46	48	46	232

Table 8. Number of Students Writing Individual Test Books.

TEST BOOK	N
T-1	684
T-2	687
T-3	674
T-4	657
T-5	673
T-6	648
T-7	647
T-8	652
T-9	639
TOTAL SAMPLE	5,961

iv. Collection of Data

The testing was done late in the academic year. All schools were tested within a three-week period. The testing was performed by a team who had trained together to follow a standardized procedure of test administration.

The testing period provided was forty minutes but most students completed their tests in less than thirty minutes. Teachers of the classes being tested were asked to complete their questionnaires at the same time.

Wherever possible both the class teacher and the test administrator remained in the classroom for the testing period.

The test administrators endeavoured to create a work-oriented but relaxed atmosphere in the classes. Students were informed that they were not expected to know all the answers and were asked not to guess. No time limit was announced.

v. Treatment of Data

The student and teacher responses were all coded onto optical scanning forms and from these transferred to a data disc.

The scores on each item were separately averaged within each class. The resultant class records were then included in the analysis as a set of single scores.

The teacher responses were matched to the appropriate class records and each item within each class record was marked so as to indicate whether it was associated with a concept taught, a concept introduced, or a concept not taught.

The data were sorted by grade.

The analysis was performed separately for each item at each grade level. Only those classes whose teachers indicated that they had been taught a specific concept were included in the analyses for that concept. The scores of classes whose teachers indicated that a particular concept had been introduced or not taught were not included in the analyses of results for that particular concept.

The analysis included the estimation of means and standard deviations. Significant differences between grade levels were also tested.

The next chapter presents the results of these analyses for individual items and for concept and task averages.

CHAPTER FIVE

DISCUSSION AND RESULTS

This chapter presents and discusses the results of the testing performed across the province of Ontario. The procedures employed in that testing were described in the preceding chapters.

The first results which we shall examine are those that reflect in general on the present state of the grammar curriculum employed.

Subsequently, we will assess the performance of the students on the eleven types of tasks that are included in the *Test de Compréhension de Structures Linguistiques* without making reference to specific concepts.

The next step will be to focus on the data relevant to the individual concepts.

Finally, we shall make some observations regarding the results in general and present a table summarizing the data for each of the concepts.

The student results reported in this chapter include only the responses from subjects who have been taught the concepts tested.

ii. The Present Curriculum in Grammar

What is the present situation in the teaching of *grammaire* within the schools of Ontario?

The time allocated to instruction in *grammaire* varies widely. This reflects, perhaps, a diversity of opinion regarding the importance of formal grammar instruction. *Table* 9 reports the mean amount of time spent in each grade. The large standard deviations accompanying these means indicate that they are the result of averaging widely spread times.

Table 9. Mean Time (Minutes) Spent per Week Giving Formal Grammar Instruction by Grade.

Grade	M	SD	N of Classes
4	148	77	41
5	139	72	45
6	163	107	50
7	175	102	47
8	156	74	46

The lack of pattern emerging from these results is perhaps a reflection of the state of ambiguity that characterizes current attitudes toward formal grammar instruction.

The teacher questionnaire that we employed reveals, in part, the content of the curriculum followed. It solicits this information both indirectly and directly.

The indirect indications of the curriculum followed are the texts employed in the teaching of grammar. *Table D-1* in Appendix D lists the most popular series of texts in order of frequency of use.

The parallel direct information is the frequency with which, at each grade level, the teachers indicated that they had either not taught, only introduced, or taught the individual concepts.

The frequency with which the individual concepts were taught was of special interest to us as it reflected upon the relevancy of the TCSL. All the concepts, except for *adverbe* and *conjonction* had been at least introduced to more than 75% of the classes by grade eight. Twenty-one of the twenty-seven concepts had been introduced in more than 90% of the classrooms by grade eight. This indicated that the concepts in our instrument were relevant to what was being taught.

Although there are variations from class to class, one can observe when the concepts are, in general, introduced.

The precise percentages of classes that have been taught, only introduced to, or not taught each of the particular concepts are presented later in this chapter in *Tables 11* to *37*, each of which presents the data for a particular concept. The same data on the frequency of teaching each concept is collected on *Table D-2* in Appendix D.

These tables indicate that in grade four at least half the students have been exposed to:

adjectif possessif
adjectif qualificatif
adjectif démonstratif
adjectif numéral
nom
pronom personnel
verbe
verbe d'état
verbe d'action
temps présent
temps futur
and sujet.

In grade five, the list lengthens to include:

temps composé
complément direct du verbe
and attribut.

The concepts added at the sixth grade level are:

adverbe
pronom possessif
pronom démonstratif
proposition
proposition indépendante
proposition principale
proposition subordonnée
complément indirect du verbe
and complément circonstantiel du verbe.

Pronom relatif is presented in grade seven. These observations are based on a criterion of the concept having been at least introduced in at least half the classes. The reader is encouraged to consult the tables for more detailed information.

iii. Student Achievement on the Tasks

Before examining the results from individual concepts, we shall consider the results from the eleven tasks in general. The performance on these tasks, as revealed by the average scores across all the concepts taught, may be used as an indication of the general nature of grammar concept development in the junior and intermediate grades.

Table 10 presents the average performance of all students taught the items being tested, on all questions that represent each of the individual tasks. It allows us to assess task difficulty without reference to any particular concept.

The easiest tasks are revealed as being numbers 3, 4, and 5. These test concept attainment at the classificatory level. The reader will recall that in order to perform these tasks the subject must know the name of the concept and be able to say which structures in any sentence are examples of it and which are not examples of it. The higher results for these three tasks are consistent with Klausmeier's theory. It should be noted that because success with these tasks requires not only concept attainment at the classificatory level but also the learning of appropriate concept labels, success on Tasks 3, 4, and 5 is a direct function of instruction.

The data on *Table 10* can be used to infer when, in general, the students are ready to benefit from instruction . For our purposes, a success rate of at least fifty percent shall be taken as an

Table 10. Average Scores on Items Relating to Specific Tasks by Grade.

		TASK										
		1	2	3	4	5	6	7	8	9	10	11
GRADE	4	.45	.44	.50	.44	.54	.28	.27	.38	.33	.33	.22
	5	.49	.52	.55	.48	.55	.36	.35	.43	.39	.39	.30
	6	.55	.57	.58	.53	.60	.44	.41	.47	.45	.44	.38
	7	.60	.61	.63	.62	.66	.51	.45	.55	.53	.51	.47
	8	.68	.69	.70	.67	.73	.59	.52	.64	.61	.57	.52
All Grades		.55	.57	.59	.55	.62	.44	.40	.49	.46	.45	.38

indication of readiness. This is not to imply that a success rate of one-half is satisfactory. Our interest is readiness and evidence of half the students succeeding is taken as a reasonable indication of average age of readiness, hence the fifty percent criterion.

Returning to Tasks 3, 4, and 5, we see from *Table 10* that, in general, readiness to learn to name examples of grammatical structures appears to be present in grades four and five.

The results in *Table 10* indicate that Tasks 1 and 2 are on the average slightly more difficult than 3, 4, and 5. These two tasks test the student's ability to name and identify the attributes used in defining a concept. The fact that students in general find it easier to identify the concepts than to discriminate the attributes used in the concept definitions is consistent with the hypothesis, suggested in the last section of chapter 2, that the students are often associating labels with previously mastered concepts rather than learning the concepts through definitions provided in their grammar lessons. In other words, the student who has not mastered the meaning of the words in a definition, but who can identify examples of the concept being defined is unlikely to be using the misunderstood definition to perform that identification.

The ability tested by Tasks 1 and 2, that is, the ability to name and discriminate the defining attributes of a concept, is prerequisite to concept attainment at the formal level within Klausmeier's theory. The frequency with which the performance on Tasks 1 and 2 is superior to that on Tasks 6 and 7, and usually 8 and 9, can be interpreted as supportive of that aspect of the theory.

Performance on Tasks 1 and 2 can be perhaps taken as a necessary but not sufficient indication of readiness for attainment of a concept at the formal level.

Tasks 6, 7, 8, and 9 all contribute to the assessment of concept attainment at the formal level. The reader will recall that attaining a concept at this level requires that one be capable of specifying the exact basis on which one decides if any structure is or is not an example of the concept. In other words, one must know and understand the precise definition of the concept before one can claim to have attained the concept at the formal level. *Table 10* indicates that Tasks 8 and 9 are slightly easier, on the average, than Tasks 6 and 7. This is possibly because Tasks 8 and 9 are stated in a form similar to that of school definitions and are thus more likely to reflect the effects of memorization.

The degree to which the average results on these four tasks are lower than those for Tasks 3, 4, and 5 strongly supports the hypothesis that knowledge of definitions is not the primary method used by students in identifying structures that exemplify grammar concepts.

Readopting our criterion of fifty percent success, we can conclude from *Table 10* that readiness to benefit from instruction in the nature of grammar concepts, as tested by Tasks 6, 7, 8, and 9, is not present until grades seven and eight. In other words, the students are unlikely to develop a formal conscious understanding of grammar until seventh or eighth grade.

Task 10 requires that the student identify a concept supraordinate to the one being tested. *Table 10* suggests that it is, on the average, easier than Tasks 6 and 7. This is consistent with Klausmeier's contention that concept attainment at the formal level is not prerequisite to concept use. The fact that it is considerably more difficult than Tasks 1 through 5 may reflect the fact that it asks the students to place the concept within a linguistic hierarchy. Sinclair's work discussed in chapter 2 indicates that the child has difficulty seeing words as elements of a linguistic universe until he has reached the most advanced stage of metalinguistic awareness.

Task 11 is the most difficult. Perhaps it is because of the triple information load being tested. The question requires that one know two concepts and the rule that links them.

Finally, before leaving our discussion of the tasks, a cautionary technical note is required.

The task averages are based on the concept taught. The children in the higher grades are taught more of the difficult concepts than the children in the lower grades. When scores on a single task are averaged, the average, at the higher grade levels, is taken from performance on concepts that are on the average more difficult. The developmental trends on *Table 10* are thus likely to show smaller improvements with grade than would be found had an unbiased method of calculation been employed.

iv. Student Achievement on the Concepts

We turn now to the performance of the students on the individual concepts. The paradigm which we adopted was to attempt to assess readiness by inference from the success of attempts at instruction. That is, instruction that succeeds is assumed to have been practiced on students who were ready. The paradigm suffers from its failure to control the quality of instruction. However, one may assume that good and poor teaching will be spread evenly across the grades but that readiness will vary systematically with grade.

Our discussion will again refer to learning as having taken place if at least fifty percent of the students succeed. As we explained above, this criterion is adopted only because our primary interest is readiness rather than success of instruction.

Each of *Tables 11* to *37* summarizes the data relevant to a single concept[64]. The tables reveal when the concepts are taught, when the concepts are learnt, and in what manner they are understood. The top part of each table presents the percentages of teachers who indicate that their students have been taught, introduced, or not taught the concept. The middle section of each table presents average scores across all tasks for that concept. This information is presented in both tabular and graphic form, and may be taken as a general indication of degree of concept attainment. The lower section of each table provides a more detailed picture with data for each task being presented separately. These results are presented in terms of percentages of students who can perform the tasks for that concept.

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[64] The data from all the concepts is summarized on *Table 38* at the end of this chapter. For the purposes of comparing performance on individual items at one grade level, the data is presented by grade rather than concept on *Tables D-2* to *D-8* in Appendix D. Concept averages are presented by grade on *Table D-9*.

We will discuss the results relevant to each concept individually, making reference to the table that summarizes the data for that concept.

We shall remark on the interesting features of each table. Special emphasis will be placed on performance on Tasks 3, 4, and 5 which test the students' ability to identify examples and non-examples of the concept. Students who can perform these tasks have attained the concept at the classificatory level and know the name of the concept.

Special emphasis will also be placed on Tasks 6, 7, 8, and 9 which test concept attainment at the formal level. Success with these tasks requires knowledge of definitions and a conscious understanding of the nature of the concept.

The reader is invited to refer to the questions in Appendix C when studying the results. That appendix contains the questions on which the students were assessed. They are identified by a code number which consists of the relevant concept number followed by the relevant task number.

Adverbe (see Table 11)

Adverbe is rarely taught before the sixth grade. The scores on Tasks 3, 4, and 5 which test concept attainment at the classificatory level, suggest that students are ready to learn to identify *adverbe* by the sixth grade level. The low scores on Tasks 6, 7, 8, and 9 which test concept attainment at the formal level indicate that the students fail to understand the concept until eighth grade. This, however, must be interpreted with caution in the light of their ability, assessed by Tasks 1 and 2, to identify words that "describe a verb" at the grade six level.

Adjectif possessif (see Table 12)

Table 12 indicates that *adjectif possessif*, when taught, can be identified in grade four. The students only begin to recognize the property of "indicating ownership" (Task 2) in grade seven and only begin to understand its definition at that time.

Adjectif qualificatif (see Table 13)

The students are ready to identify this structure in grade four. They do not succeed in attaining it at the formal level until grade six. If the rule which links it to a noun is taught, it is likely to be learnt in grade five.

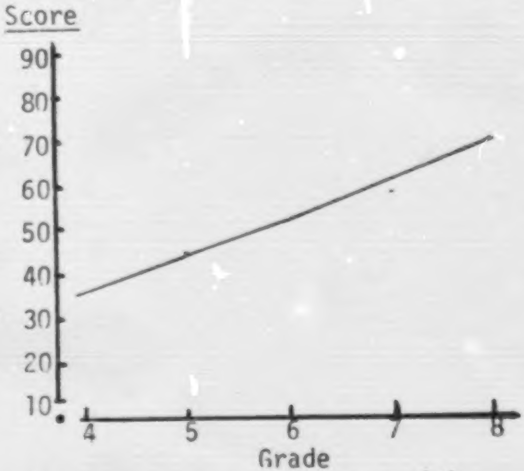
Table 11. Summary of Statistics for Concept Number 1, *adverbe*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 1 as indicated by teacher response.

	Grade	4	5	6	7	8
Taught		3	7	47	41	57
Introduced		8	27	29	27	17
Not taught		90	66	24	32	26

B.- Average concept scores (%) by grade*

Grade	Score
4	
5	30
6	42**
7	43
8	56**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 1.

Grade	Task	1	2	3	4	5	6	7	8	9	10	11
4												
5												
6		49	58	63	63	49	45	37	26	29	7	32
7		48	53	69	64	50	44	26	33	33	15	37
8		61	55	83	75	57	67	51	49	59	19	41

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

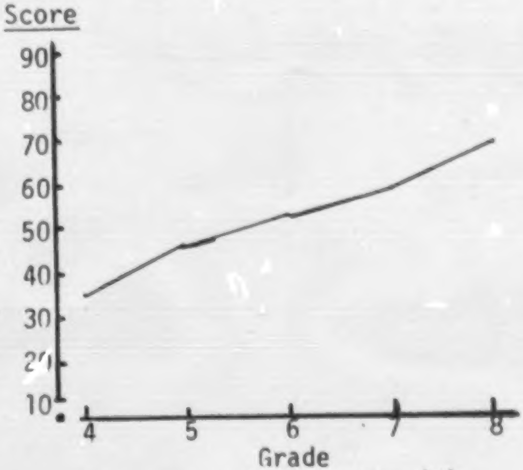
Table 12. Summary of Statistics for Concept Number 2, *adjectif possessif*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 2 as indicated by teacher response.

	Grade	4	5	6	7	8
Taught		49	68	84	91	89
Introduced		41	20	10	9	11
Not taught		10	11	6	0	0

B.- Average concept scores (%) by grade*

Grade	Score
4	37
5	44**
6	50**
7	56**
8	68**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 2.

Grade	Task	1	2	3	4	5	6	7	8	9	10	11
4		--	44	55	55	56	33	37	21	11	38	21
5		--	43	66	65	55	35	39	37	28	36	34
6		--	49	59	71	66	47	41	49	26	49	43
7		--	58	67	70	60	50	50	59	45	50	64
8		--	76	84	81	69	63	53	80	48	63	64

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

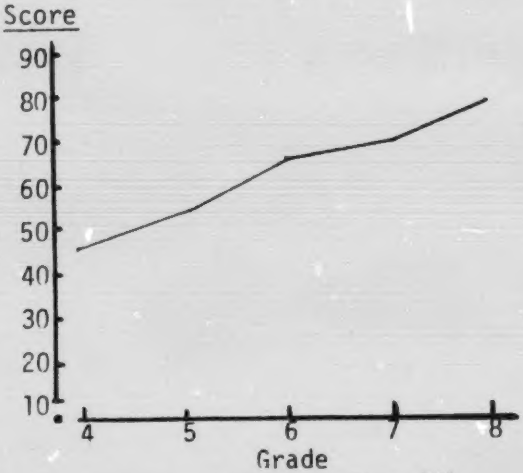
Table 13. Summary of Statistics for Concept Number 3, *adjectif qualificatif*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 3 as indicated by teacher response.

	Grade	4	5	6	7	8
Taught		100	100	100	100	100
Introduced		0	0	0	0	0
Not taught		0	0	0	0	0

B.- Average concept scores (%) by grade*

Grade	Score
4	43
5	52**
6	65**
7	69**
8	77**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 3.

Grade	Task	1	2	3	4	5	6	7	8	9	10	11
4		54	36	57	45	61	34	23	41	34	51	34
5		69	51	52	52	63	42	30	50	54	54	51
6		76	68	66	70	78	50	47	69	60	69	62
7		86	78	62	67	77	50	56	69	70	67	75
8		87	87	74	73	88	59	66	83	76	73	80

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, ($P = .05$).

Adjectif démonstratif (see Table 14)

This type of adjective is recognized by those students who have been taught to do so in grade four. The students do not demonstrate any readiness to understand its definition until grade eight.

Adjectif numéral (see Table 15)

Students taught this concept can recognize examples of it in grade four. The low scores on Task 4 in contrast to Tasks 3 and 5 reveal that there is a persistent tendency to confuse this structure with numerical nouns (see question 5-4 in Appendix C). Students appear to be ready to gain knowledge of this concept's definition in grade six.

Nom (see Table 16)

Nom is a concept defined in terms of its semantic referents. Its defining attributes (Tasks 1 and 2) are easily understood at the grade four level. Students recognize it, when taught it, at the grade four level. They demonstrate readiness for understanding it at the formal level by grade five. However, the results from Task 10 suggest that they do not realize that it is a part of speech until grade eight.

Pronom personnel (see Table 17)

The subjects demonstrated readiness to learn to identify examples of this concept at the grade four level and to attain a formal understanding of it at the grade six level.

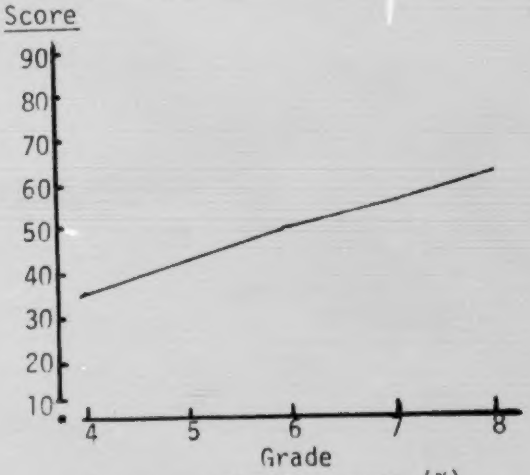
Table 14. Summary of Statistics for Concept Number 4, *adjectif démonstratif.*

A.- Percentage of the sample (by grades) relative to exposure to concept No. 4 as indicated by teacher response.

	Grade	4	5	6	7	8
Taught		46	70	86	89	89
Introduced		31	23	10	9	11
Not taught		23	7	4	2	0

B.- Average concept scores (%) by grade*

Grade	Score
4	36
5	41
6	48**
7	55**
8	60**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 4.

Grade	Task	1	2	3	4	5	6	7	8	9	10	11
4		28	33	72	32	61	32	20	20	24	32	41
5		27	55	74	39	61	38	28	16	27	51	40
6		34	66	79	47	57	52	36	23	39	50	49
7		49	78	69	59	55	54	40	33	48	59	59
8		44	79	78	71	64	62	48	36	54	68	60

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, ($P = .05$).

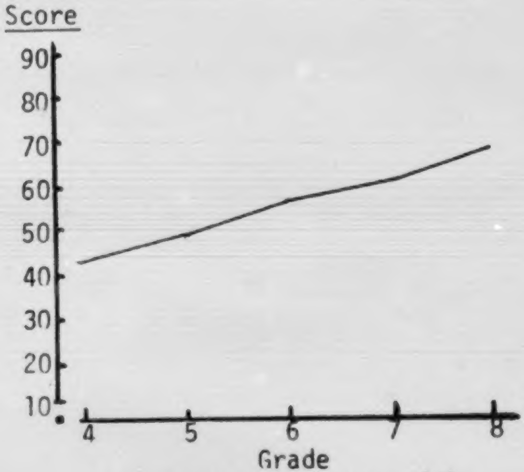
Table 15. Summary of Statistics for Concept Number 5, *adjectif numéral.*

A.- Percentage of the sample (by grades) relative to exposure to concept No. 5 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	62	55	69	67	76
Introduced	21	25	20	22	22
Not taught	18	20	10	11	2

B.- Average concept scores (%) by grade*

Grade	Score
4	42
5	49
6	56**
7	60
8	69**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 5.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4	46	66	34	26	56	38	32	42	42	51	27
5	40	70	53	25	59	44	41	59	48	59	38
6	52	81	47	14	68	71	57	52	55	76	39
7	54	75	63	35	67	61	59	55	62	83	51
8	53	85	67	39	81	76	63	74	82	89	51

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

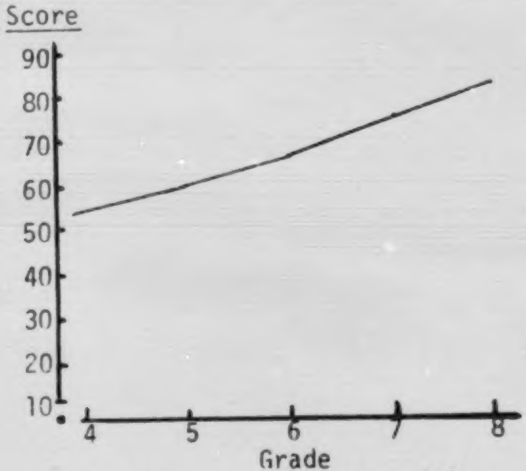
Table 16. Summary of Statistics for Concept Number 6, *nom.*

A.- Percentage of the sample (by grades) relative to exposure to concept No. 6 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	100	100	100	100	100
Introduced	0	0	0	0	0
Not taught	0	0	0	0	0

B.- Average concept scores (%) by grade*

Grade	Score
4	53
5	60**
6	67**
7	75**
8	80**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 6.

Grade	Task	1	2	3	4	5	6	7	8	9	10	11
4		75	72	79	75	54	39	33	68	51	6	25
5		88	77	87	81	63	52	44	71	57	14	25
6		92	77	90	82	64	72	56	69	81	14	42
7		96	82	91	90	80	79	66	78	85	26	54
8		97	83	95	95	83	80	75	77	90	36	70

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

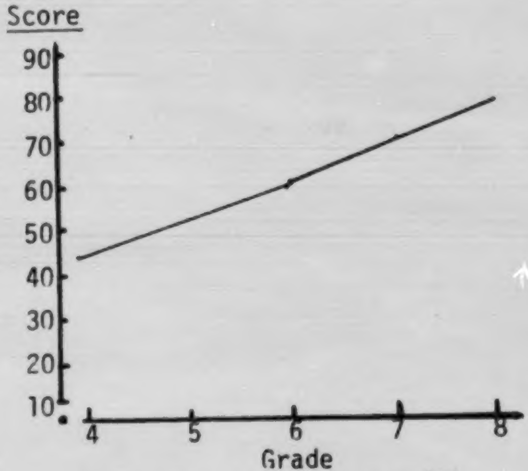
Table 17. Summary of Statistics for Concept Number 7, *pronom personnel*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 7 as indicated by teacher response.

	Grade 4	5	6	7	8
Taught	69	77	84	82	85
Introduced	15	20	12	9	13
Not taught	15	2	4	9	2

B.- Average concept scores (%) by grade*

Grade	Score
4	44
5	52**
6	59**
7	67**
8	73**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4	78	36	35	62	50	34	16	38	47	47	42
5	76	59	57	59	63	44	19	40	36	60	55
6	82	67	51	68	69	52	34	53	54	58	66
7	88	72	59	73	80	60	49	65	54	68	72
8	95	67	61	79	84	75	52	79	59	77	75

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

Pronom possessif (see Table 18)

When taught, students attain this concept at the classificatory level in grade five. The high scores in grade four for Tasks 3 and 4 are impressive but failure to perform Task 5 (see question 8-5 in Appendix C) is a definite indication that the full ability to name examples of this concept is not developed until grade five.

The students do not appear to be ready to learn it at the formal level until grade eight.

Pronom démonstratif (see Table 19)

The students appear to be ready to partially learn to identify *pronom démonstratif* in grade five when it is first taught. However, failure to perform Task 4 even at the grade eight level reveals that concept attainment at the classificatory level is not complete. Confusion of this concept with *adjectif démonstratif* (see question 9-4, Appendix C) is probably the source of this difficulty.

Attainment of the concept at the formal level rarely occurs before grade eight.

Pronom rélatif (see Table 20)

The number of teachers who introduce this concept prior to grade 6 was so low that it was impossible to assess readiness prior to that grade. Readiness to learn how to identify examples of it was, however, apparent at that grade level.

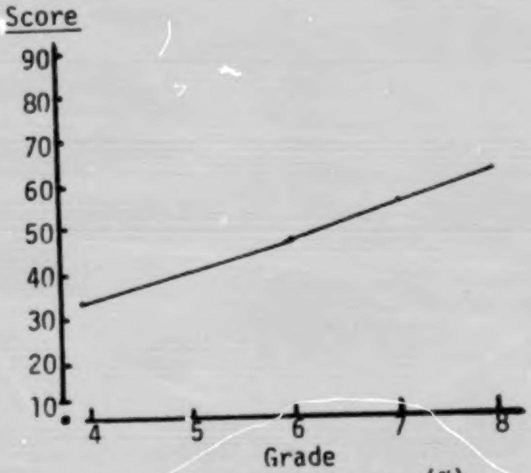
Table 18. Summary of Statistics for Concept Number 8, *pronom possessif*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 8 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	10	39	61	60	78
Introduced	10	18	24	11	13
Not taught	79	43	14	29	9

B.- Average concept scores (%) by grade*

Grade	Score
4	33
5	41**
6	49**
7	54**
8	61**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 8.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4											
5	38	26	60	87	25	37	50	34	33	42	19
6	49	52	62	93	47	37	45	44	35	42	32
7	51	70	57	94	46	32	38	63	41	64	32
8	66	75	73	90	56	40	53	76	53	56	38

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

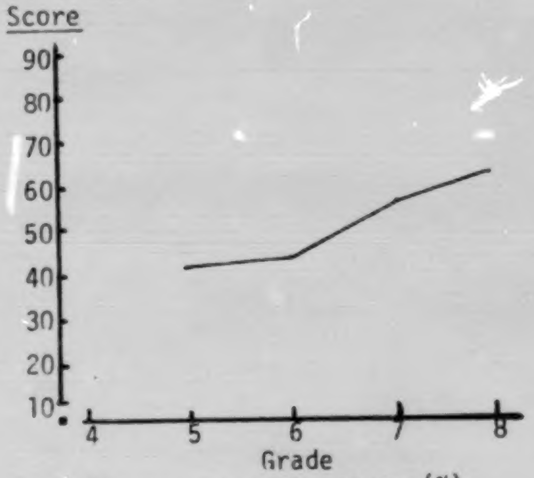
Table 19. Summary of Statistics for Concept Number 9, *pronom démonstratif*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 9 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	3	41	63	58	72
Introduced	10	9	20	16	20
Not taught	87	50	16	27	9

B.- Average concept scores (%) by grade*

Grade	Score
4	
5	42
6	45
7	53**
8	60**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 9.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4											
5	43	56	51	36	59	56	21	33	7	48	35
6	40	59	47	28	72	57	19	47	36	50	36
7	41	60	55	43	76	88	32	54	40	45	48
8	54	77	50	39	84	85	29	59	53	69	58

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

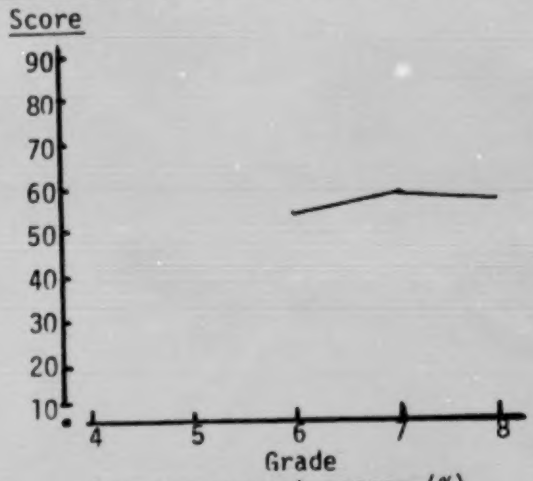
Table 20. Summary of Statistics for Concept Number 10, *pronom relatif*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 10 as indicated by teacher response.

	Grade	4	5	6	7	8
Taught		0	7	35	44	61
Introduced		0	16	24	20	28
Not taught		100	77	41	36	11

B.- Average concept scores (%) by grade*

Grade	Score
4	
5	
6	52
7	57
8	56



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 10.

Grade	Task	1	2	3	4	5	6	7	8	9	10	11
4												
5												
6		70	60	58	63	66	43	29	32	33	56	56
7		60	55	74	60	81	45	44	51	35	60	56
8		71	54	69	49	77	46	46	45	41	64	56

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, ($P = .05$).

Readiness to attain at the formal level appeared incomplete even in grade eight.

Verbe (see Table 21)

The students were ready to learn to identify verbs at the grade four level. Furthermore, the grade four students could identify examples of the attribute of "expressing an action" (Task 1). However, they do not appear to be ready to accept the definition until grade eight. This may be due to the idea of "expressing a state" included in the definition.

On the other hand, it may be due to a reluctance to accept a definition of low ecological validity for a concept that has been well mastered.

Verbe d'état (see Table 22)

This concept, often taught in grade four, is only identified at the grade seven level. The attribute of expressing a state is not understood until grade seven (Tasks 1 and 2). *Verbe d'état*, when it is taught, is not attained at the formal level until grade eight. It is interesting to note that the results from Task 10 show that it is only at the grade seven level that we find more than half the students realize that the *verbe d'état* is a type of verb (see question 12-10 in Appendix C).

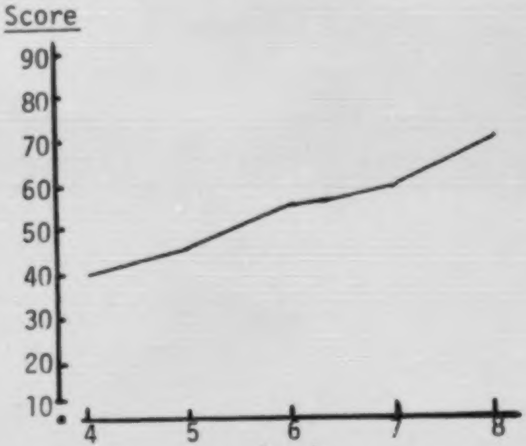
Table 21. Summary of Statistics for Concept Number 11, *verbe*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 11 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	100	100	100	100	100
Introduced	0	0	0	0	0
Not taught	0	0	0	0	0

B.- Average concept scores (%) by grade*

Grade	Score
4	40
5	44
6	55**
7	61**
8	67**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 11.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4	66	13	79	57	78	21	26	41	20	29	11
5	77	18	82	69	84	20	31	45	26	19	12
6	85	34	97	81	92	44	35	58	25	27	22
7	84	37	96	94	92	56	44	53	43	36	29
8	92	41	97	94	97	63	48	56	51	50	46

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

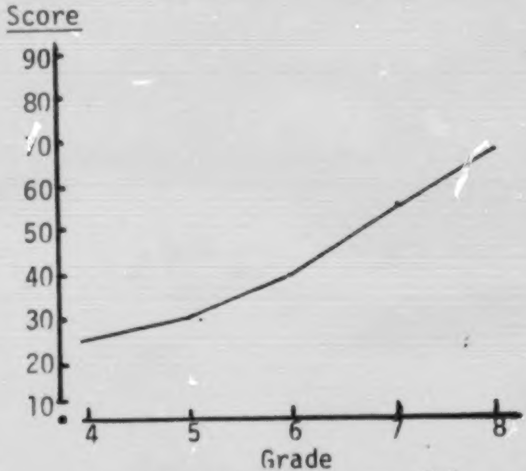
Table 22. Summary of Statistics for Concept Number 12, *verbe d'État*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 12 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	63	66	73	91	96
Introduced	21	20	23	7	2
Not taught	16	14	4	2	2

B.- Average concept scores (%) by grade*

Grade	Score
4	24
5	30**
6	40**
7	53**
8	62**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 12.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4	24	29	38	16	43	26	23	15	14	31	9
5	29	26	45	24	43	33	30	18	17	30	33
6	43	38	51	34	58	56	40	27	24	48	23
7	49	54	67	55	73	57	45	49	36	56	34
8	71	62	77	63	84	64	55	59	48	68	32

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

Verbe d'action (see Table 23)

Readiness to benefit from instruction in *verbe d'action* appears in grade four. At that level the students understand the defining attribute and are capable of learning to identify examples of the concept. They do not learn the formal nature of the concept until grade seven. They understand that it is a type of verb in grade five.

Temps composé (see Table 24)

Readiness to learn to identify examples of *temps composé* is apparent in grade six. Students can identify an *auxilliaire* and a *participe passé* in grade six (Tasks 1 and 2). But performance on Tasks 7 and 9 reveal that they fail to properly understand the definition of *temps composé* even at the grade eight level.

Conjonction (see Table 25)

Conjonction is rarely taught before grade six but the students at that level appear ready to benefit from the instruction, that is, they learn to identify examples of the concept. By the seventh grade they show readiness to attain the concept at the formal level.

Temps présent (see Table 26)

The attributes of this concept are identified by students in grade four (Tasks 1 and 2). The definition of this concept is learned when it is taught in grade four (Tasks 8 and 9). However, the students have difficulty separating the relevant from the irrelevant attributes

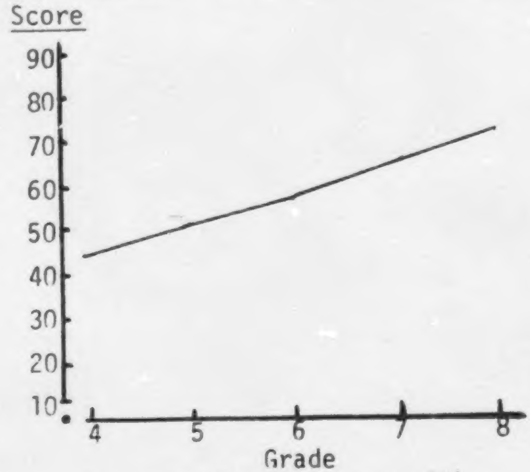
Table 23. Summary of Statistics for Concept Number 13, *verbe d'action.*

A.- Percentage of the sample (by grades) relative to exposure to concept No. 13 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	80	14	81	98	96
Introduced	14	9	17	2	4
Not taught	6	7	2	0	0

B.- Average concept scores (%) by grade*

Grade	Score
4	44
5	51**
6	58**
7	67**
8	73**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 13.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4	63	43	70	58	63	50	19	40	32	39	12
5	69	54	70	66	73	41	33	42	44	52	15
6	82	63	77	70	76	64	36	42	53	54	23
7	81	66	79	78	89	67	46	64	62	62	40
8	91	78	94	92	89	72	53	65	57	68	48

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

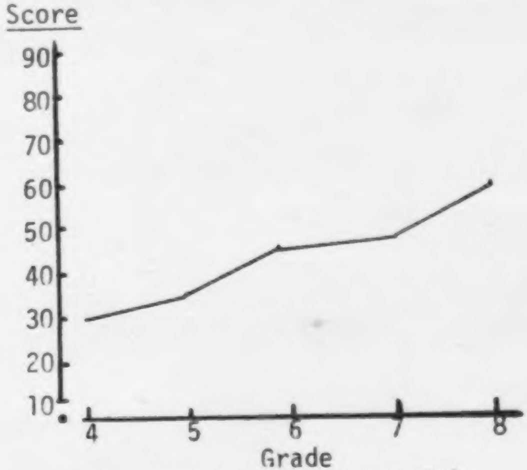
Table 24. Summary of Statistics for Concept Number 14, *temps composé*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 14 as indicated by teacher response.

	Grade	4	5	6	7	8
Taught		53	68	88	89	91
Introduced		21	23	10	7	7
Not taught		26	9	2	4	2

B.- Average concept scores (%) by grade*

Grade	Score
4	29
5	38**
6	47**
7	48
8	60**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 14.

Grade	Task	1	2	3	4	5	6	7	8	9	10	11
4		25	43	46	33	45	6	33	41	18	29	6
5		34	48	62	41	64	19	45	50	22	24	13
6		57	70	63	55	71	40	36	54	32	22	17
7		69	66	67	54	66	45	31	54	35	28	17
8		88	80	81	63	77	50	39	64	43	42	27

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

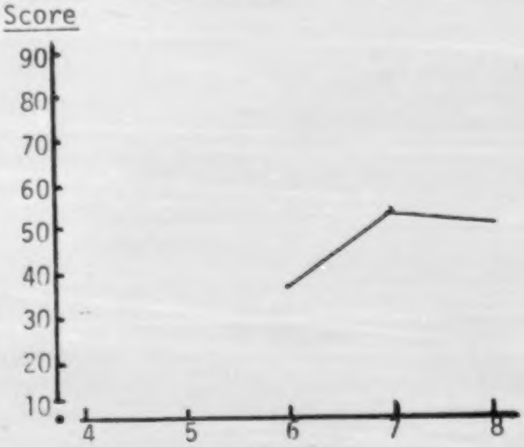
Table 25. Summary of Statistics for Concept Number 15, *conjonction.*

A.- Percentage of the sample (by grades) relative to exposure to concept No. 15 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	3	9	29	24	48
Introduced	3	9	35	36	20
Not taught	95	82	37	40	33

B.- Average concept scores (%) by grade*

Grade	Score
4	
5	
6	39
7	55**
8	53



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 15.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4											
5											
6	67	--	65	50	54	26	48	36	46	7	30
7	86	--	65	51	72	53	66	55	70	29	62
8	86	--	76	44	73	53	57	60	67	25	42

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

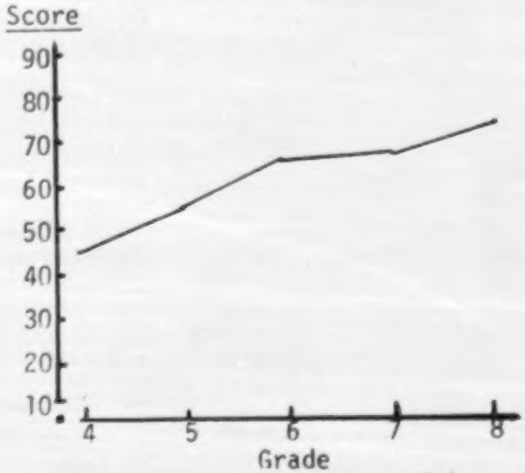
Table 26. Summary of Statistics for Concept Number 16, *temps présent.*

A.- Percentage of the sample (by grades) relative to exposure to concept No. 16 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	100	100	100	100	100
Introduced	0	0	0	0	0
Not taught	0	0	0	0	0

B.- Average concept scores (%) by grade*

Grade	Score
4	46
5	54**
6	67**
7	69
8	76**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 16.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4	54	66	39	49	60	8	22	71	60	47	24
5	63	76	46	62	73	17	33	75	58	56	30
6	78	91	66	71	78	27	50	89	74	60	47
7	78	93	68	74	73	34	42	92	85	66	50
8	85	95	74	77	83	44	53	96	93	68	73

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

of *temps présent* right until eighth grade (Tasks 6 and 7). Accuracy in identifying examples of the concept is attained by grade five (Tasks 3, 4, and 5).

Temps passé (see Table 27)

The attributes of *temps passé* are identified by grade five. The concept's examples can be separated from non-examples by grade five students as well. The definition is assimilated, when taught, in grade four. The relevant and irrelevant attributes are confused until grade eight.

Temps futur (see Table 28)

This concept has attributes that are recognized by grade four students. When it is taught, its examples are correctly labelled in grade four and it is fully attained at the formal level in grade six.

Proposition (see Table 29)

The low scores on Tasks 3, 4, and 5 reveal that students do not learn to identify examples of *proposition* until grade eight. They appear to succeed earlier in learning about the defining properties that they are taught but the students fail to associate these properties with the appropriate linguistic phenomena.

The failure to perform Tasks 3, 4, and 5 outweighs any success in Tasks 6, 7, 8, and 9 in the assessment of attainment of *proposition* at the formal level.

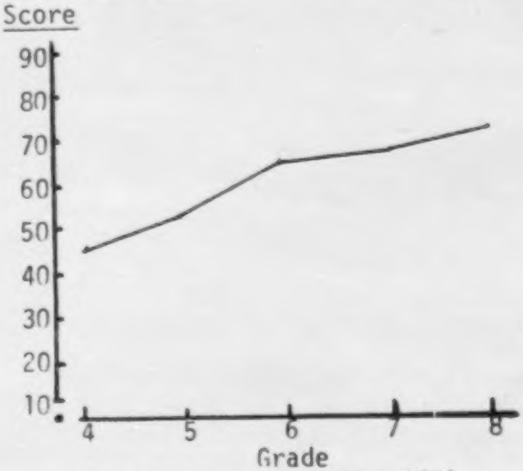
Table 27. Summary of Statistics for Concept Number 17, *temps passé*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 17 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	92	98	100	100	98
Introduced	3	2	0	0	2
Not taught	5	0	0	0	0

B.- Average concept scores (%) by grade*

Grade	Score
4	44
5	51**
6	61**
7	67**
8	72**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 17.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4	42	47	43	34	61	8	45	57	60	48	32
5	51	68	66	37	66	23	49	57	63	56	30
6	66	78	68	54	80	31	40	68	76	62	50
7	78	87	71	58	81	35	50	77	83	67	49
8	77	90	73	65	84	47	52	82	86	74	60

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

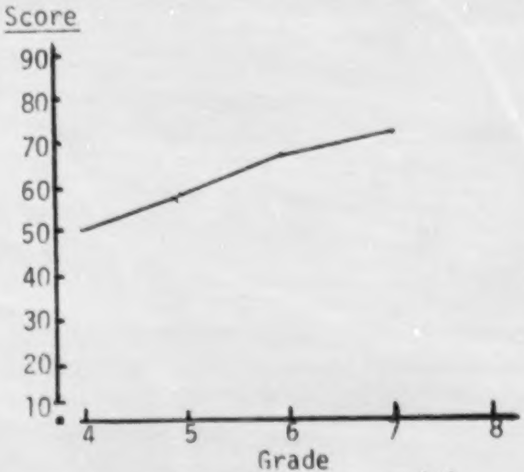
Table 28. Summary of Statistics for Concept Number 18, *temps futur*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 18 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	100	100	98	100	100
Introduced	0	0	2	0	0
Not taught	0	0	0	0	0

B.- Average concept scores (%) by grade*

Grade	Score
4	50
5	58**
6	68**
7	74**
8	78



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 18.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4	52	64	57	64	66	36	25	39	61	46	39
5	66	78	55	71	69	53	32	49	72	50	44
6	71	96	57	77	85	63	52	54	77	61	55
7	79	96	71	85	85	75	52	54	81	63	72
8	84	95	78	86	86	78	45	75	89	72	74

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, ($P \leq .05$).

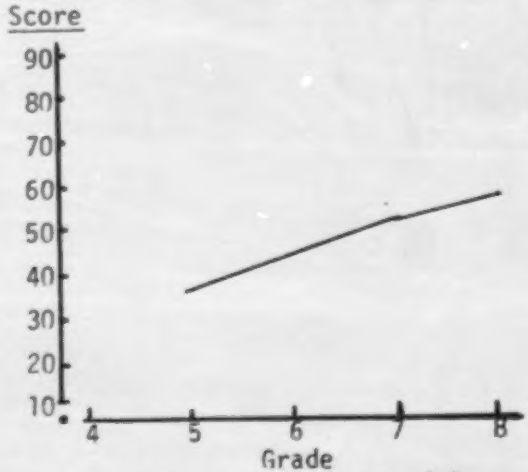
Table 29. Summary of Statistics for Concept Number 19, *proposition*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 19 as indicated by teacher response.

	Grade 4	5	6	7	8
Taught	5	32	83	76	74
Introduced	5	18	13	9	17
Not taught	90	50	4	16	9

B.- Average concept scores (%) by grade*

Grade	Score
4	
5	37
6	46**
7	52**
8	60**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 19.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4											
5	46	64	29	2	23	51	46	13	51	31	55
6	60	64	48	17	42	53	36	36	36	51	67
7	71	72	56	26	43	59	51	28	45	45	80
8	80	80	58	29	59	56	51	47	53	52	86

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

The definition generally offered for *proposition* cannot be used as a universal guide to identifying the examples of that concept which may explain some of the difficulty in attaining the concept.

Proposition indépendante (see Table 30)

As in *proposition*, students do not appear ready to learn to accurately label examples of this concept until grade eight. They appear to be ready to "learn" the definition in grade six but do not appear to have mastered its meaning until grade eight.

Proposition principale (see Table 31)

The students fail to identify examples of this concept after having been taught it, even at the grade eight level. They do appear to learn its definition by grade eight but one may question the nature of that learning.

Proposition subordonnée (see Table 32)

Instruction in this concept succeeds when given at the grade eight level. This is true for the skills tested by Tasks 1 through 10.

Sujet (see Table 33)

It is not until grade six that the students benefit from the instruction given them and display some accuracy in separating examples from non-examples of the concept *sujet*. The attainment of this concept at the formal level is not realized until the eighth grade, despite its

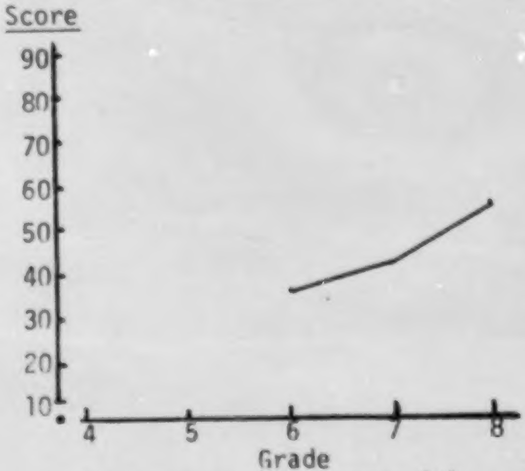
Table 30. Summary of Statistics for Concept Number 20, *proposition indépendante*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. as indicated by teacher response.

	Grade	4	5	6	7	8
Taught		0	2	73	69	74
Introduced		5	18	20	13	13
Not taught		95	80	6	18	13

B.- Average concept scores (%) by grade*

Grade	Score
4	
5	
6	39
7	43**
8	55**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 20.

Grade	Task	1	2	3	4	5	6	7	8	9	10	11
4												
5												
6		34	25	31	26	37	40	38	62	56	54	30
7		38	27	31	26	35	50	32	71	62	55	62
8		61	42	46	48	45	53	39	86	79	58	4[illegible]

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

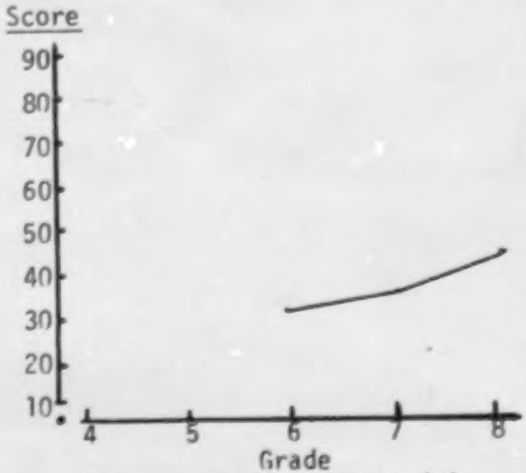
Table 31. Summary of Statistics for Concept Number 21, *proposition principale.*

A.- Percentage of the sample (by grades) relative to exposure to concept No. 21 as indicated by teacher response.

	Grade 4	5	6	7	8
Taught	0	0	65	67	72
Introduced	3	20	29	16	11
Not taught	97	80	6	18	17

B.- Average concept scores (%) by grade*

Grade	Score
4	
5	
6	32
7	37**
8	46**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 21.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4											
5											
6	13	41	28	39	24	42	32	37	18	44	29
7	13	51	32	46	36	46	35	37	26	57	32
8	11	54	32	65	47	59	64	56	36	47	38

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

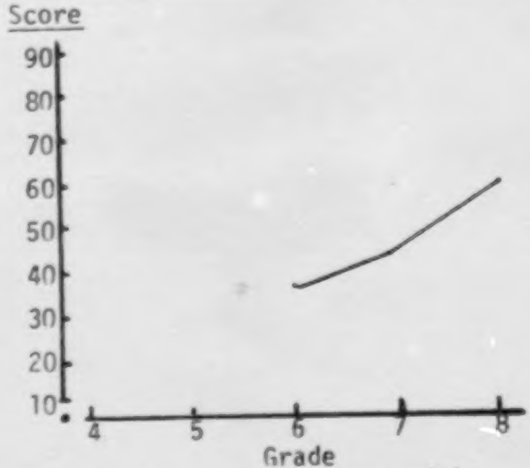
Table 32. Summary of Statistics for Concept Number 22, *proposition subordonnée.*

A.- Percentage of the sample (by grades) relative to exposure to concept No. 22 as indicated by teacher response.

	Grade	4	5	6	7	8
Taught		0	0	63	67	72
Introduced		3	20	31	18	11
Not taught		97	80	6	16	17

B.- Average concept scores (%) by grade*

Grade	Score
4	
5	
6	40
7	47**
8	61**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 22.

Grade	Task	1	2	3	4	5	6	7	8	9	10	11
4												
5												
6		26	33	48	35	55	30	46	53	49	30	29
7		31	36	49	59	67	32	56	57	46	50	32
8		50	53	66	64	81	55	64	70	69	58	38

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P ≤ .05).

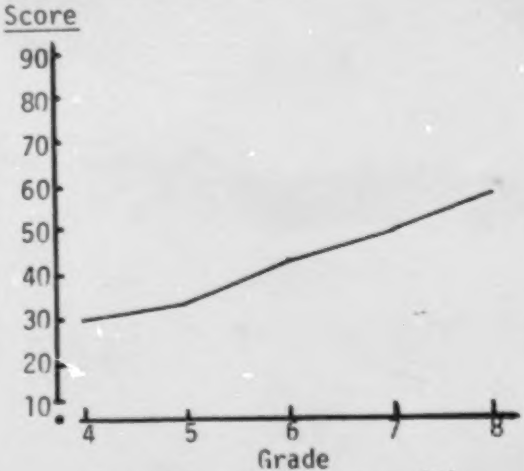
Table 33. Summary of Statistics for Concept Number 23, *sujet*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 23 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	77	100	100	100	100
Introduced	15	0	0	0	0
Not taught	8	0	0	0	0

B.- Average concept scores (%) by grade*

Grade	Score
4	30
5	35**
6	45**
7	52**
8	60**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 23.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4	37	43	45	33	34	20	33	46	18	11	13
5	44	55	53	38	43	21	40	45	15	12	14
6	45	59	72	55	59	33	56	46	29	27	15
7	50	51	81	71	73	44	63	48	35	39	19
8	64	66	85	74	82	59	65	54	52	46	17

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, ($P = .05$).

being taught in most grade-four classrooms.

Complément direct du verbe (see Table 34)

Reasonable accuracy in identifying examples of this concept is not achieved until grades seven and eight. The formal level of concept attainment is rarely attained even at the grade eight level.

Attribut (see Table 35)

Instruction succeeds in allowing the students to identify *attribut* at the grade five level. Formal concept attainment is most likely at the grade eight level. Knowledge of the agreement of an attribute with its subject also is not developed until the eighth grade (Task 11).

Complément indirect du verbe (see Table 36)

Students, when taught this concept, learn to identify examples of it by grade seven. They have difficulty identifying examples of its defining attributes until grade eight and display an incomplete readiness for formal concept attainment at that grade level.

Complément circonstantiel du verbe (see Table 37)

The definition of this concept appears to be memorized before the students learn to identify examples of the concept. This ability to recognize examples of the concept appears with instruction in grade seven.

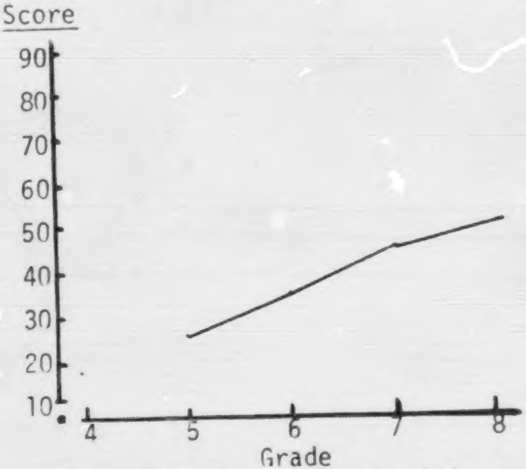
Table 34. Summary of Statistics for Concept Number 24, *complément direct du verbe.*

A.- Percentage of the sample (by grades) relative to exposure to concept No. 24 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	21	61	98	98	96
Introduced	26	16	2	2	4
Not taught	54	23	0	0	0

B.- Average concept scores (%) by grade*

Grade	Score
4	18
5	28**
6	36**
7	45**
8	53**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 24.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4	3	50	17	15	24	28	33	7	7	16	12
5	27	51	30	38	49	14	24	11	17	34	15
6	26	67	35	48	54	13	40	9	24	53	23
7	40	78	43	62	67	27	32	14	23	61	40
8	53	87	47	73	84	31	45	18	32	70	48

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

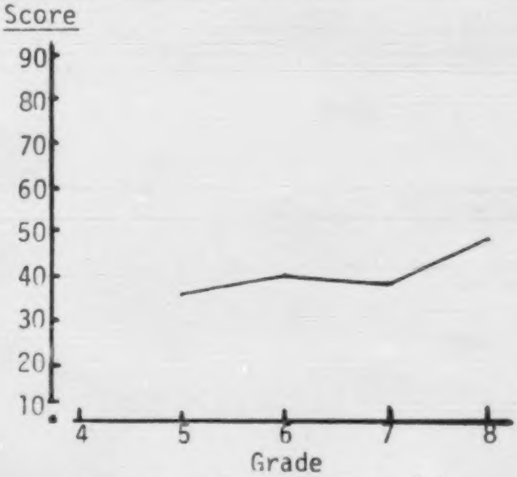
Table 35. Summary of Statistics for Concept Number 25, *attribut*.

A.- Percentage of the sample (by grades) relative to exposure to concept No. 25 as indicated by teacher response.

	Grade	4	5	6	7	8
Taught		13	48	80	93	89
Introduced		18	30	12	7	9
Not taught		69	23	8	0	2

B.- Average concept scores (%) by grade*

Grade	Score
4	
5	36
6	41**
7	40
8	49**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 25.

Grade	Task	1	2	3	4	5	6	7	8	9	10	11
4		31	18	33	--	44	33	11	28	28	8	11
5		33	53	61	--	59	39	17	37	28	11	19
6		38	65	50	--	44	36	30	62	34	16	38
7		39	56	51	--	53	30	30	63	46	14	23
8		46	69	56	--	46	46	46	71	51	10	45

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

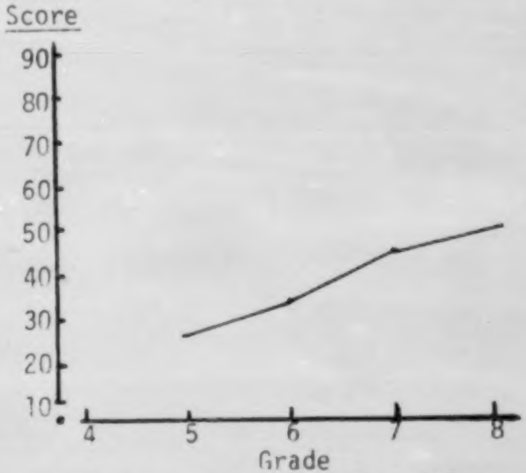
Table 36. Summary of Statistics for Concept Number 26, *complément indirect du verbe.*

A.- Percentage of the sample (by grades) relative to exposure to concept No. 26 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	5	39	94	96	89
Introduced	23	20	4	4	9
Not taught	72	41	2	0	2

B.- Average concept scores (%) by grade*

Grade	Score
4	
5	27
6	35**
7	44**
8	50**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 26.

Grade	Task 1	2	3	4	5	6	7	8	9	10	11
4											
5	7	13	31	30	40	25	38	29	21	35	13
6	22	29	47	42	42	20	50	13	29	52	16
7	25	31	49	59	64	37	50	17	42	63	26
8	33	51	60	63	60	40	55	30	45	54	37

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P= .05).

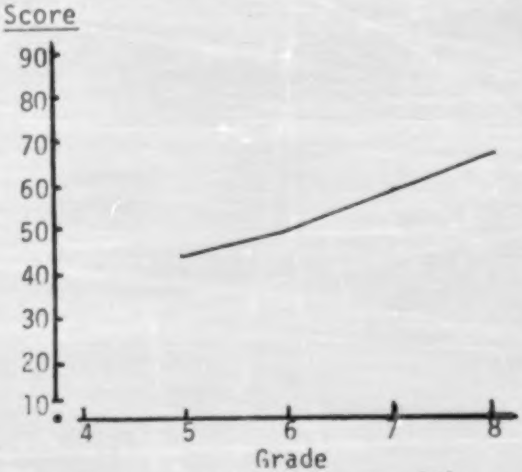
Table 37. Summary of Statistics for Concept Number 27, *complément circonstantiel du verbe.*

A.- Percentage of the sample (by grades) relative to exposure to concept No. 27 as indicated by teacher response.

Grade	4	5	6	7	8
Taught	8	35	94	87	89
Introduced	21	20	4	7	9
Not taught	72	55	2	4	2

B.- Average concept scores (%) by grade*

Grade	Score
4	
5	45
6	50
7	60**
8	68**



Average concept scores (%) by grade*

C.- Matrix of success rate (%) on individual tasks relative to concept No. 27.

Grade Task	1	2	3	4	5	6	7	8	9	10	11
4											
5	55	47	33	32	14	49	35	82	65	45	44
6	65	53	34	34	30	53	31	73	73	55	50
7	71	61	55	54	47	63	27	83	86	62	51
8	80	75	56	60	50	79	44	86	86	71	59

*Statistics calculated using only data from students "taught" the concept.

**Average score significantly higher than average score for preceding grade, (P = .05).

v. The Overall Results

Before proceeding to the conclusions, three notes are in order.

First, the general level of achievement revealed by the results is neither especially encouraging nor especially discouraging. They are consistent with results from other sources collected with other school populations. Harris and Harris[65], for example, discovered that the Frayer paradigm revealed that grade five students knew from half to two-thirds the concepts taught in previous grades.

Second, the majority of the graphs on concept development are linear in nature. This implies that the increase in conceptual development is gradual rather than discontinuous and dramatic.

Third, the general trend that emerges from the concept-task scores, and that was anticipated by the results in *Table 11*, is that: at the junior grades readiness for associating labels to concepts acquired at the classificatory level is present and that at the intermediate grades readiness to understand grammar emerges.

The overall results are summarized in *Table 38*.

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[65] Margaret L. Harris and C.W. Harris, *A Structure of Concept Attainment Abilities*, Madison, Wisconsin Research and Development Centre for Cognitive Learning, 1973, xvii-394p.

Table 38. Grade of Readiness for Learning twenty-seven concepts at two levels of concept attainment.

Concept	Grade	
	Ability to name and identify examples of concept (*classificatory level*)*	Formal knowledge of concept definition (*formal level*)**
1. adverbe	6***	8
2. adjectif possessif	4	7
3. adjectif qualificatif	4	6
4. adjectif démonstratif	4	8
5. adjectif numéral	4	6
6. nom	4	5
7. pronom personnel	4	6
8. pronom possessif	5	8
9. pronom démonstratif	5	8
10. pronom relatif	5	8
11. verbe	4	8
12. verbe d'état	7	8
13. verbe d'action	4	7
14. temps composé	6	8
15. conjonction	6***	7
16. temps présent	4	8
17. temps passé	5	8
18. temps futur	4	6
19. proposition	8	8
20. proposition indépendante	8	8
21. proposition principale	8*	8
22. proposition subordonnée	8	8
23. sujet	6	8
24. complément direct du verbe	8	8*
25. attribut	5	8
26. complément indirect du verbe	7	8
27. complément circonstantiel du verbe.	7	8

*Assessed by Tasks 3, 4, and 5.

**Assessed by Tasks 6, 7, 8, and 9.

***These concepts are not taught prior to grade six and readiness for learning them in grades four and five has not been assessed.

CHAPTER SIX

CONCLUSIONS

This chapter presents our conclusions. Its focus is the pedagogical implications of our research. The statements presented below are, in the opinion of the writers, the most reasonable inferences to be drawn from the contents of the preceding chapters.

It is worth noting that the conclusions have not been proven by our research. Proof is a rare product in any but the most extensive and focussed research. The conclusions are, however, strongly supported by both our research and that of other investigators.

It is further worth noting that research provides information. It does not provide prescriptions for action. Pedagogical procedure must be chosen by proper reference to the research in concert with professional judgment.

The professional reader is invited to study the report in detail and to draw the pedagogical inferences that best suit his or her professional orientation.

The conclusions are presented in three major divisions. First, the general conclusions regarding the psychopedagogy of grammar are presented. These take the form of statements followed by a brief discussion of each. Next, the conclusions regarding readiness to learn the specific concepts as they are now taught are presented. Finally, a brief discussion of the general implications of this research and suggestions for further investigation are presented.

General Conclusions

1) THE STRUCTURES GENERALLY INCLUDED ON THE CURRICULUM OF GRAMMAR ARE USUALLY INTUITIVELY MASTERED PRIOR TO SCHOOL ENTRANCE.

This conclusion is supported by the research on language acquisition reviewed in section iv of chapter 2. It is further confirmed by our own results which reveal that the students can identify examples of the grammatical structures before they learn the definitions offered in school.

2) THE SCHOOL CAN, BY GIVING GRAMMAR INSTRUCTION, BUILD ON THE INTUITIVE MASTERY OF THE CHILD SO AS TO INCREASE HIS LANGUAGE CAPACITY.

Grammar instruction in the classroom can teach the student to associate the appropriate labels with structures previously mastered. Knowledge of these labels will facilitate acquisition of grammatical rules not directly learned from the environment and will open the road to conscious metalinguistic understanding.

Moreover, the teacher can encourage the child to discipline the use of previously acquired structures so as to increase the precision and degree of expression used and to assure a more formal style of expression when such is appropriate. To restate the last point in the idiom of transformational-generative grammar, the teacher can aid the disciplining of language performance so that it more fully reflects the intuitively acquired grammatical competence.

3) STUDENTS AT THE JUNIOR SCHOOL LEVEL ARE, IN GENERAL, NOT READY TO DEVELOP A FORMAL CONSCIOUS UNDERSTANDING OF GRAMMAR.

This conclusion is supported by the literature on the development of metalinguistic awareness reviewed in section of chapter 2. It is further supported by our results. These results, presented in the preceding chapter, reveal that fewer than fifty percent of the students display an understanding of the majority of grammar concepts that they have been taught until they reach the eighth grade. The remaining small minority of the concepts taught are only understood by at least half the students in grades six and seven. Thus, both the theory of the development of language awareness and the failure of instruction in the junior grades indicate that it is not until intermediate school level that readiness for understanding grammar is developed.

4) INSTRUCTION AT THE JUNIOR SCHOOL LEVEL SHOULD CONCENTRATE ON TEACHING THE LABELS FOR PREVIOUSLY ACQUIRED STRUCTURES RATHER THAN TEACHING A SYSTEM OF GRAMMAR. THIS TEACHING SHOULD BE DONE PRIMARILY THROUGH THE USE OF EXAMPLES AND NON-EXAMPLES RATHER THAN THE USE OF DEFINITION.

The junior school students are in general ready to learn to label structures and are not, in general, ready to understand the nature of the structures that are being labelled. The awareness of a pattern in the language they use, which will result from label learning, will further their understanding more than definitions that they cannot assimilate or, worse still, definitions they do not associate with language patterns.

The use of a large and rationally constructed set of contextual examples and non-examples of each structure should be the primary medium of instruction[66].

This recommendation will perhaps seem less radical in the light of an analogy. Consider the child who lives in a forest but never heard the word plant. We are suggesting that the word plant be first taught by reference to plants in contrast to non-plants rather than by reference to the biochemical basis for its membership in the plant kingdom.

5) THE TEACHING OF GRAMMAR AS A SYSTEM OF TYPES OF SYMBOLS AND OF RULES THAT RELATE THOSE SYMBOLS SHOULD BE DEFERRED AT LEAST UNTIL THE INTERMEDIATE SCHOOL LEVEL.

The research and the theory indicate that readiness for understanding the nature of grammar is not sufficiently developed until grade seven, and more likely, grade eight.

We maintain that the danger of the students rejecting grammar because they were presented ideas in it that they could not understand, is sufficient to warrant the delaying of teaching conscious grammatical understanding until the grade eight level.

6) THE CONCEPTS BEING TAUGHT IN GRAMMAR SHOULD BE REDEFINED SO AS TO FACILITATE UNAMBIGUOUS INTERPRETATION.

The existence of poorly defined concepts is probably a result of the necessity of simplifying definitions so as to give them to students who are not yet ready for them. Although most teachers can unerringly identify a clause (intuitive association of a label with an intuitively mastered concept), we should be surprised if many could univocally define it. The definitions offered in standard texts are not univocally interpretable. The same is true of many other concepts being defined. We maintain that a rational definition should be given to older children.

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[66] Susan Markle, "They Teach Concepts, Don't They?", in *Educational Researcher*, Vol. 4, No. 6, June 1975, p. 3-9.

7) THE RESULTS OF THIS STUDY ARE SUPPORTIVE OF A DEVELOPMENTAL APPROACH TO CURRICULUM.

The literature reviewed and the results of our own research lend support to the acceptance of a developmental approach to the design of curriculum. More specifically, it is suggested that maturational factors be given equal weight with factors related to a hierarchy of learning in the choosing and sequencing of curricular content.

Conclusions for Specific Concepts

The following conclusions relate to readiness to learn grammar concepts as they are now taught.

Adverbe

Because *adverbe* is rarely taught before grade six, we could not assess readiness for this structure in grades four and five.

Students can learn to identify it in grade six.

Adjectifs

Students can learn to identify all types of *adjectif* in grade four. They can understand the idea of an adjective in grade six. Instruction aimed at defining the nature of the various types of adjectives is best delayed until grade eight.

Nom and pronoms

Instruction can succeed in teaching the students to associate the appropriate labels with examples of these structures at the grade four level. The names of the types of pronouns may not be learnt until grades five or six but the frequency of instruction in grade four was such that mastery of the varieties of pronouns at the grade four level remains an uneliminated possibility.

The formal level of concept attainment appeared to have been reached in grade six for both *nom* and *pronom* but not until grade eight for the types of pronouns.

Verbe, verbe d'état and verbe d'action

These structures are recognized by the students who have been taught to do so, at the grade four level. (Reliable results are available for *verbe d'état* at the grade six level only).

The students seem to have little difficulty with choosing words that express an action, but are not ready to learn the formal nature of these concepts until grades seven and eight. One wonders whether the defining attributes for *verbe* that they intuitively mastered when they were children were based on syntactic function rather than semantic referrent and thus inhibit the association of an unsatisfactory definition with a well mastered concept. Alternatively, the meaning of expressing a state may be the source of the confusion.

Temps

Our results indicate that the tenses (we tested only the present, past and future) can be successfully taught in grade four, but should be retaught with emphasis on their defining attributes in grade eight.

Proposition

The normal approach employed in teaching *proposition* should be reassessed. Our results indicate that memorized rather than functional knowledge characterizes the results of instruction in this and related structures.

An algorithmization of the definition used for this concept may be a very useful first step in improving instruction, as most definitions now employed do not allow univocal interpretation.

Instruction in this and related structures is perhaps best delayed until the grade seven or eight level.

Sujet, attribut and complément

Instruction that focuses on the subject-verb-object type of relationship could be reasonably begun in grade seven. However, if one were to defer the definitions of these concepts until grade eight, which is the only time they are properly learnt in any case, one could probably, in the estimation of the writers, successfully teach these ideas by reference to examples at the grade four or five level.

We turn now to suggestions for additional research which could further the work begun by this project.

Our first two recommendations concern the *Test de Compréhension de Structures Linguistiques.* The draft version of that instrument was validated in a pilot study. The results of that study led to revisions in several questions. We suggest that a second validation study now be carried out with the revised version of the instrument so as to assess the precise effects of those revisions.

The TCSL aspires to assess student performance on eleven tasks for each of twenty-seven concepts. It contains one question for each task with each concept. We suggest that at least one alternative question be paired to all the existing questions. This would facilitate more reliable assessment and would make possible the use of alternate test forms.

Our next recommendations relate to our findings in the domain of grammar instruction. Our study employed a modified multiple matrix design. This allowed a broad and accurate assessment of readiness by grade, which was our objective.

It is recommended that a similar study be conducted using a traditional sampling procedure. This would allow a more thorough analytical investigation of the dynamics of grammar concept learning within the individual. In particular, a study which used Klausmeier's theory of concept learning and development to further probe the interaction of intuitively acquired grammar and grammar learnt in the classroom may yield interesting results. Such a study could ask to what extent instruction is building on intuitively acquired grammar and to what extent it is developing, in the students, ideas that remain unconnected to the grammar which the child brings with him when he starts his schooling.

In addition, an experimental study on the degree to which students can learn to identify grammatical structures when given instruction that consists only of labelling appropriate examples and non-examples would be of value.

We recommend that studies similar to the present one be performed in other subject areas. An extension of the analysis of the relationship between intuitively acquired concepts and conscious awareness of these concepts, for school subjects other than grammar, would be of great interest. The benefits of such a study would probably be greatest for disciplines in which broad intuitive mastery is likely to be acquired outside of the classroom, or for age groups or populations who are likely to have broad but unschooled experience in the subject matter under investigation.

The design of pedagogical strategies for grammar instruction would be assisted if a content analysis of the grammar curriculum were undertaken. Such an analysis would best be done by teachers and grammarians using the tools of logic. The result would be a hierarchy of ideas and skills, the mastery of each being dependent on mastery of those below it in the hierarchy. This would provide a rationale for sequencing instruction within a grammar curriculum and thus would complement our findings on the ages of readiness at which students are most likely to benefit from that curriculum.

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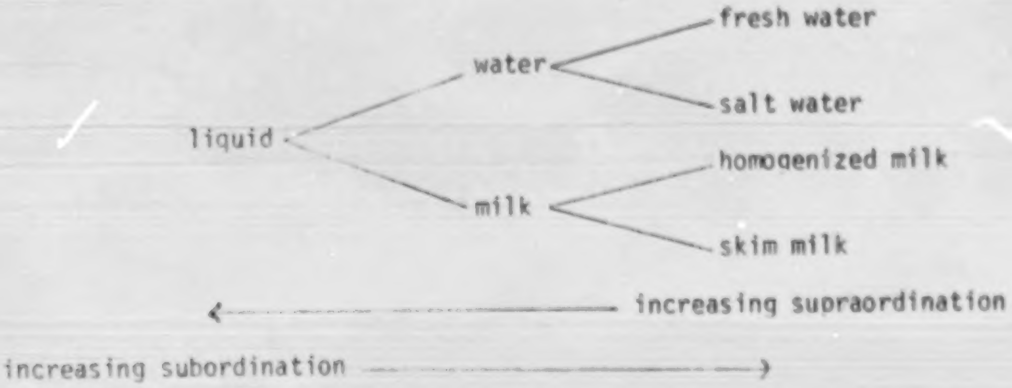
APPENDIX A

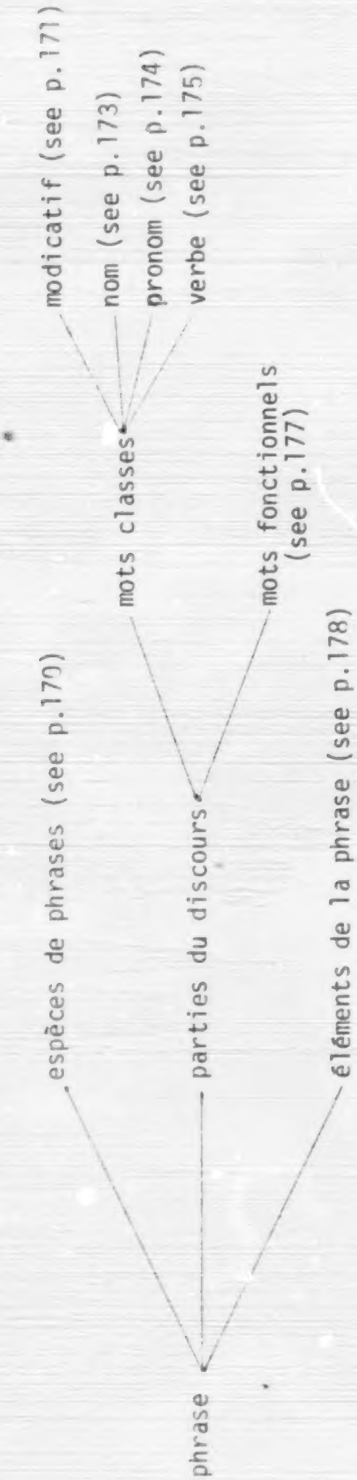
A HIERARCHY OF GRAMMAR CONCEPTS

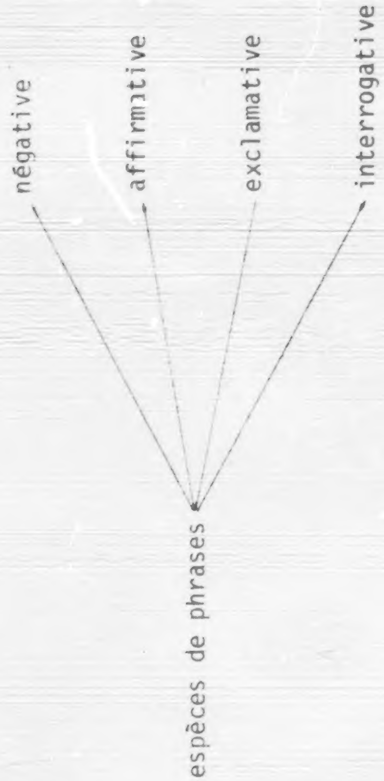
The following is a logical hierarchy of grammar concepts. It has been formulated to aid in the conceptualization of supraordinate and subordinate interconceptual relationships. It is neither a pedagogical nor a linguistic hierarchy although it is of relevance to both of those disciplines.

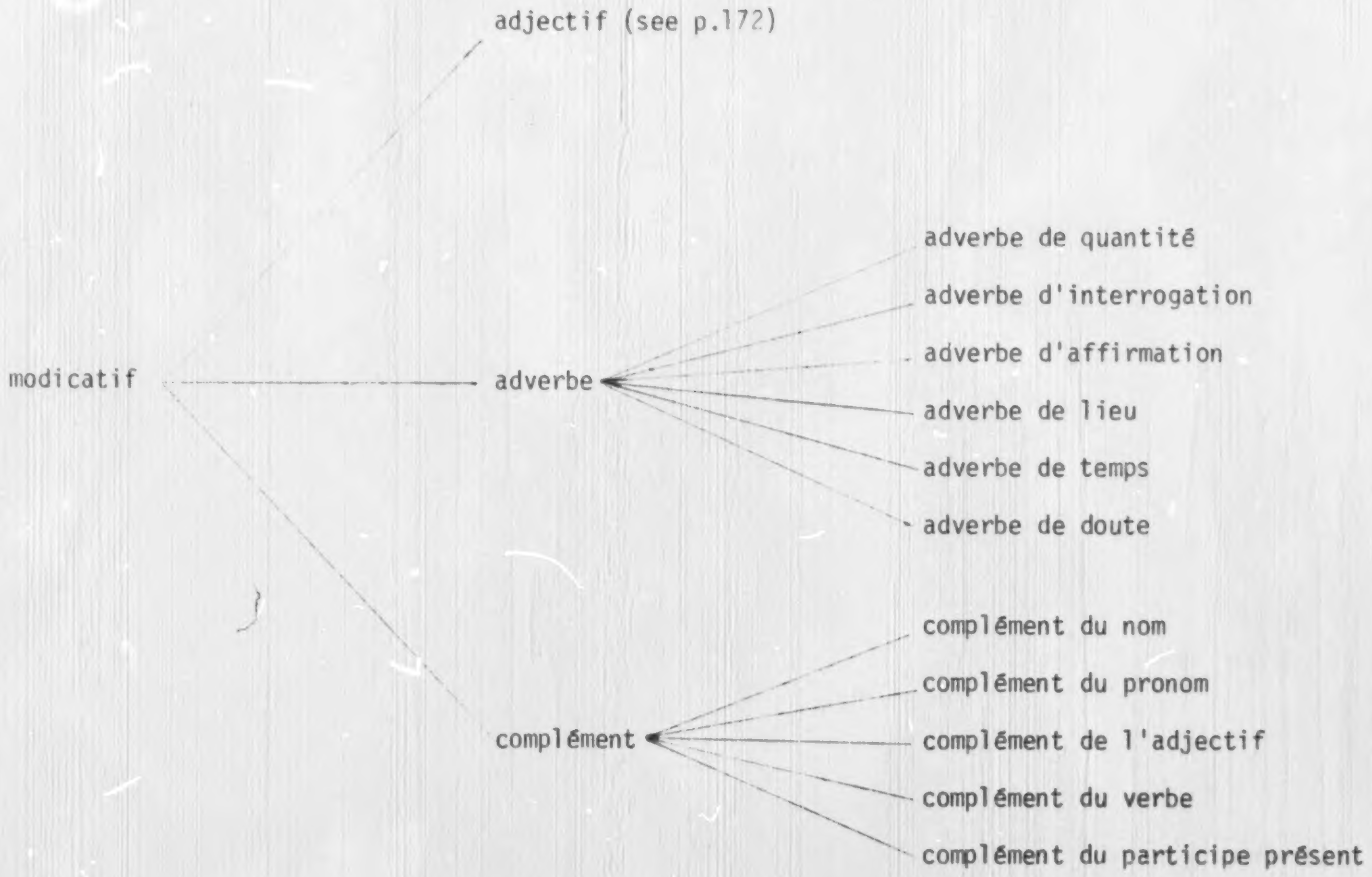
The hierarchy is spread out over several pages but it should be noted that it is one branching hierarchy, not several individual hierarchies. Ideally the hierarchy should be presented on one large chart.

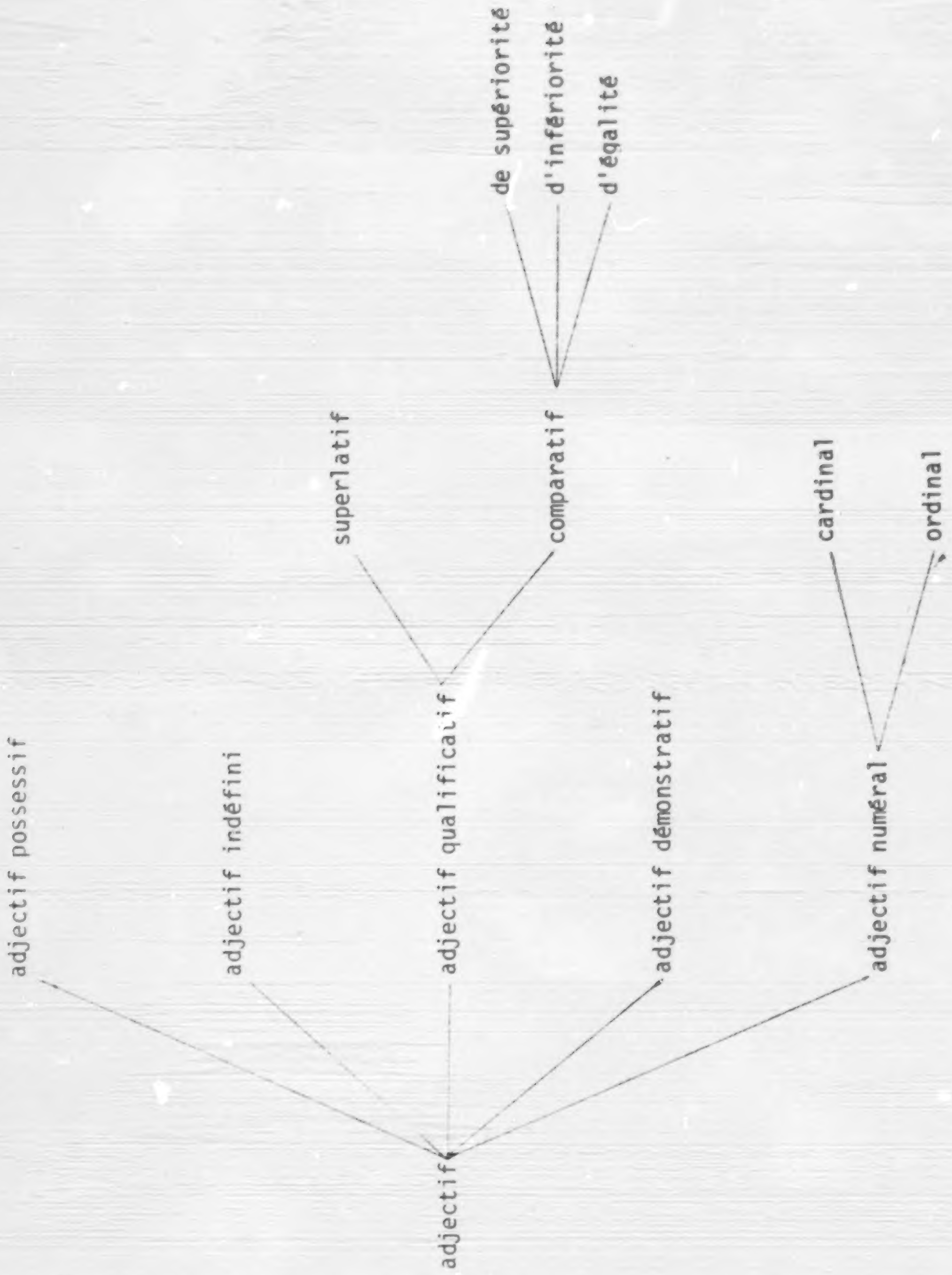
The example presented below illustrates the organization of the hierarchy. *Liquid* is supraordinate to all the concepts appearing to the right of it. *Water* is both subordinate to *liquid* and supraordinate to *fresh water* and *salt water*. Similarly, *milk* is subordinate to *liquid* and supraordinate to *homogenized milk* and *skim milk*. The two types of water are subordinate to both *water* and *liquid* and the two types of milk are subordinate to both *milk* and *liquid*.

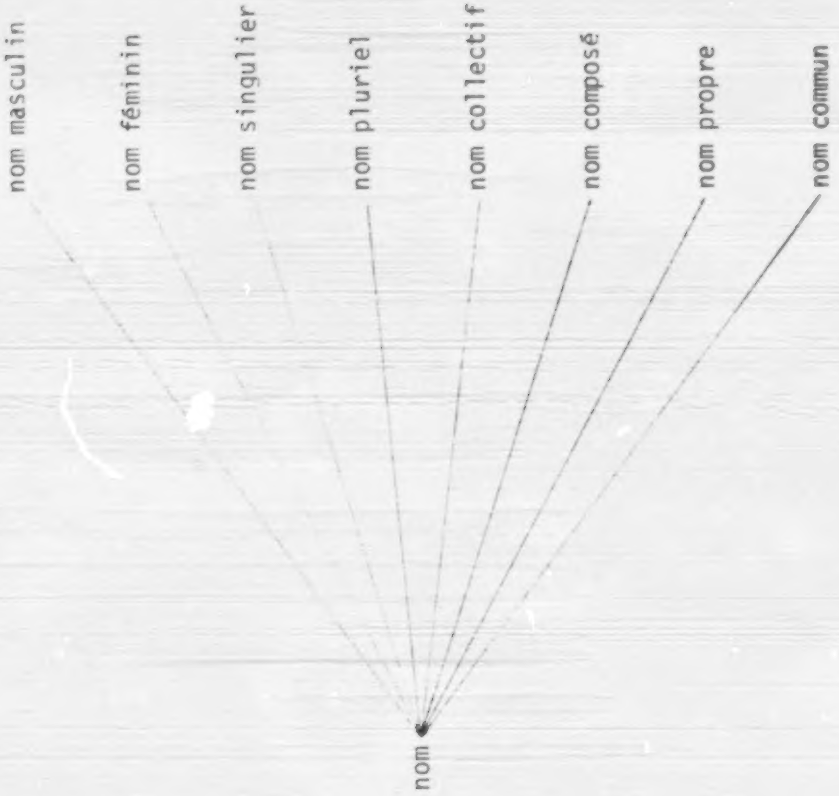

fresh water
water
salt water
liquid
homogenized milk
milk
skim milk
increasing supraordination
increasing subordination

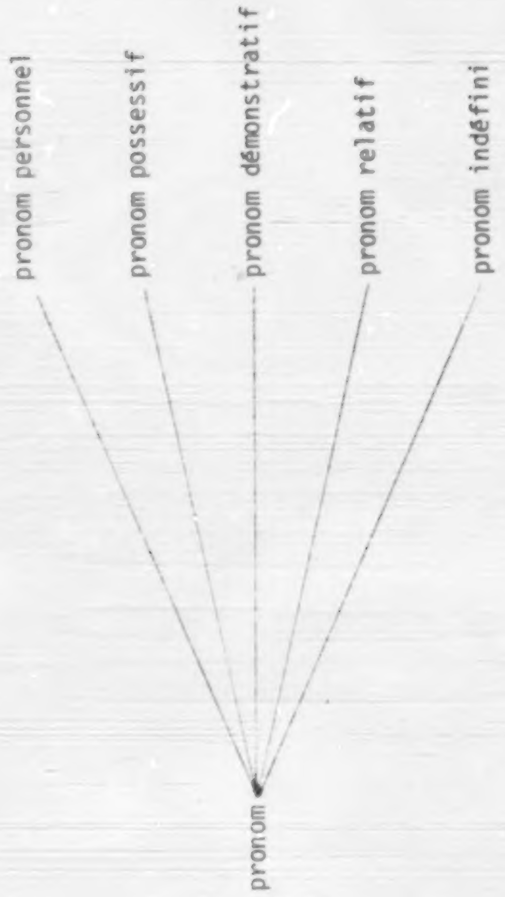

phrase
espèces de phrases (see p.170)
parties du discours
mots classes
modicatif (see p.171)
nom (see p.173)
pronom (see p.174)
verbe (see p.175)
mots fonctionnels (see p.177)
éléments de la phrase (see p.178)

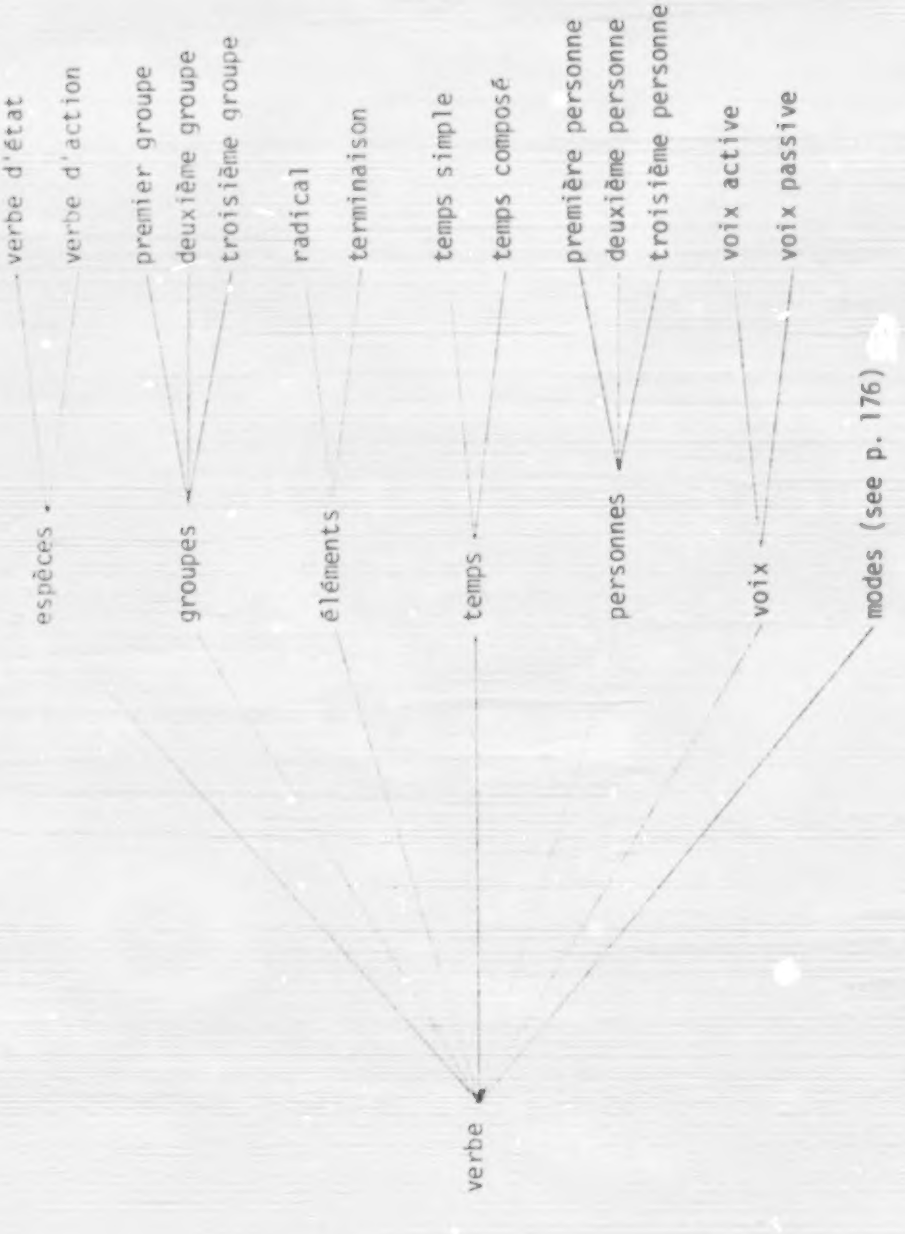

espèces de phrases
négative
affirmitive
exclamative
interrogative

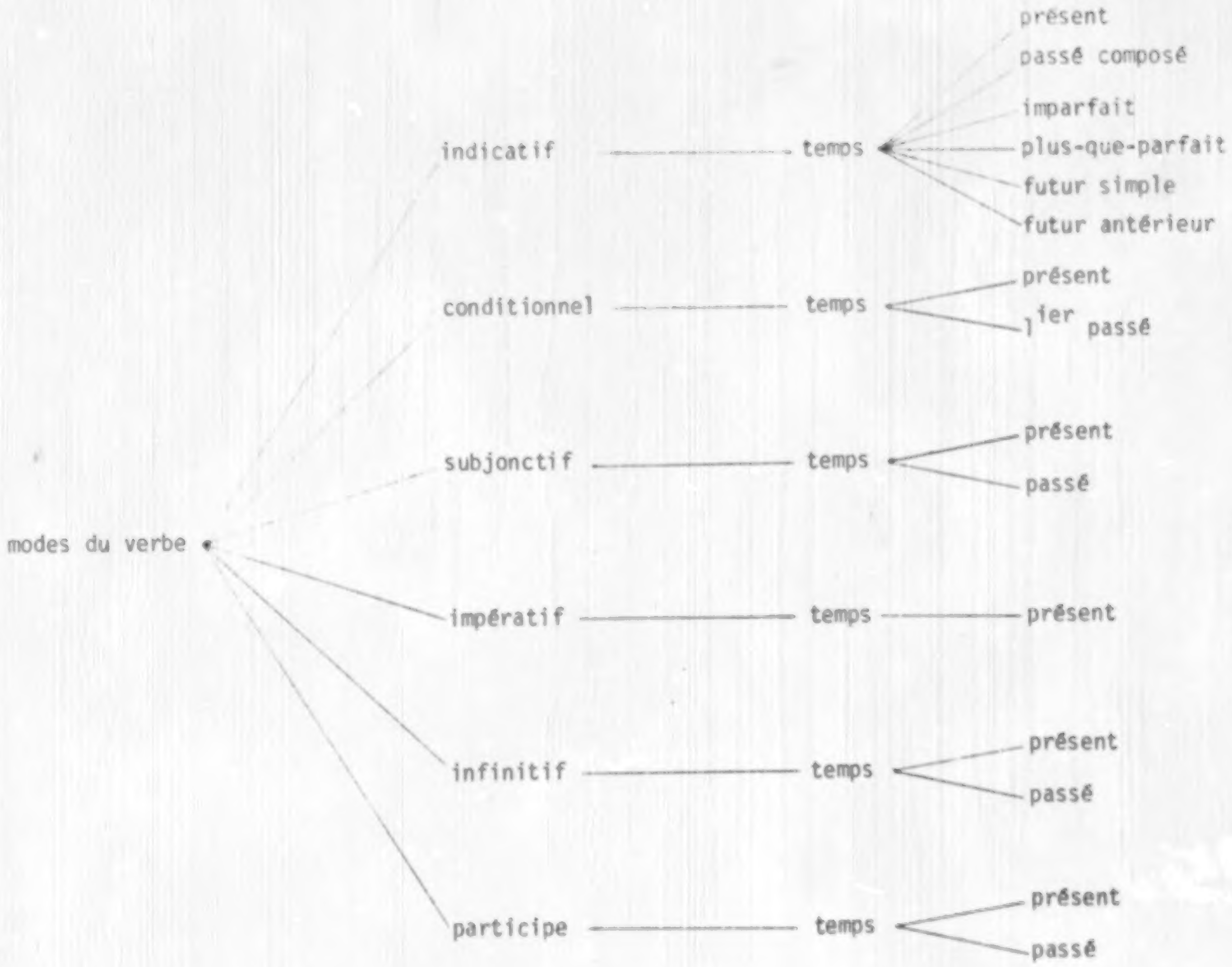

adjectif (see p.172)
modicatif
adverbe
adverbe de quantité
adverbe d'interrogation
adverbe d'affirmation
adverbe de lieu
adverbe de temps
adverbe de doute
complément
complément du nom
complément du pronom
complément de l'adjectif
complément du verbe
complément du participe présent

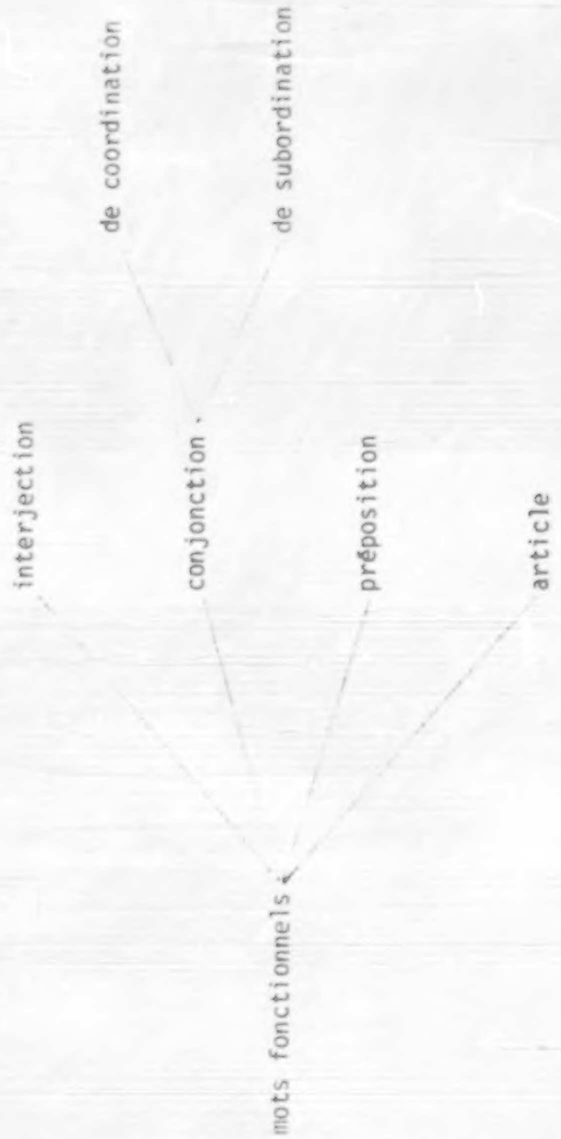

adjectif
adjectif possessif
adjectif indéfini
adjectif qualificatif
adjectif démonstratif
adjectif numéral
superlatif
comparatif
de supériorité
d'infériorité
d'égalité
cardinal
ordinal

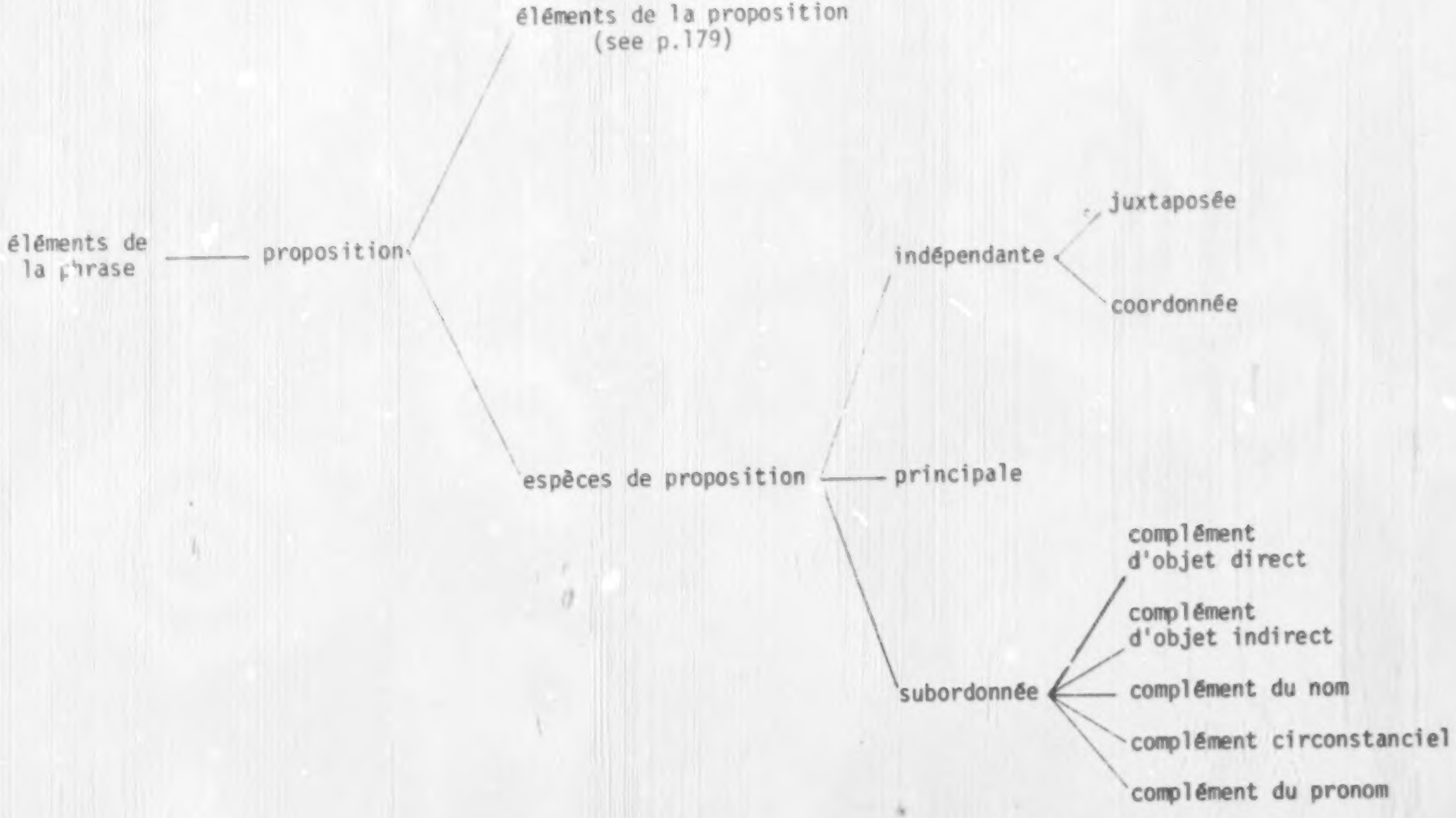

nom masculin
nom féminin
nom singulier
nom pluriel
nom collectif
nom composé
nom propre
nom commun
nom

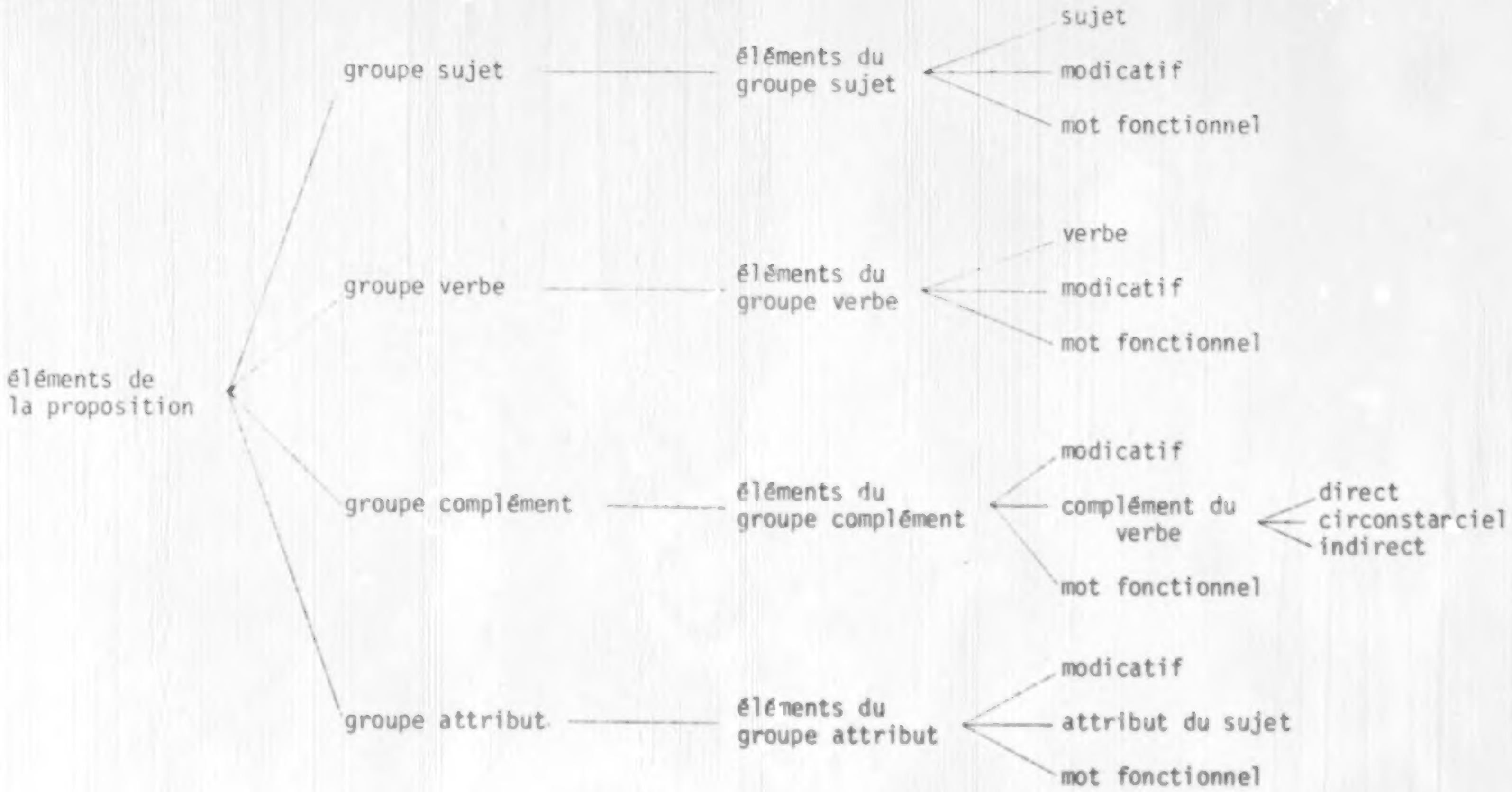

pronom personnel
pronom possessif
pronom démonstratif
pronom relatif
pronom indéfini
pronom


verbe
espèces
verbe d'état
verbe d'action
groupes
premier groupe
deuxième groupe
troisième groupe
éléments
radical
terminaison
temps
temps simple
temps composé
personnes
première personne
deuxième personne
troisième personne
voix
voix active
voix passive
modes (see p. 176)


modes du verbe
indicatif
temps
présent
passé composé
imparfait
plus-que-parfait
futur simple
futur antérieur
conditionnel
temps
présent
1ier passé
subjonctif
temps
présent
passé
impératif
temps
présent
infinitif
temps
présent
passé
participe
temps
présent
passé


mots fonctionnels
interjection
conjonction
de coordination
de subordination
préposition
article


éléments de la phrase
proposition
éléments de la proposition (see p.179)
espèces de proposition
indépendante
juxtaposée
coordonnée
principale
subordonnée
complément d'objet direct
complément d'objet indirect
complément du nom
complément circonstanciel
complément du pronom


éléments de la proposition
groupe sujet
éléments du groupe sujet
sujet
modicatif
mot fonctionnel
groupe verbe
éléments du groupe verbe
verbe
modicatif
mot fonctionnel
groupe complément
éléments du groupe complément
modicatif
complément du verbe
direct
circonstarciel
indirect
mot fonctionnel
groupe attribut
éléments du groupe attribut
modicatif
attribut du sujet
mot fonctionnel

APPENDIX B

RESULTS FROM THE PILOT STUDY

Table		page
B1	Concept Numbers	181
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B3	Means, Standard Deviations, and Reliability Estimates for the Whole Test, by Grade	183
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Table B1. Concept Numbers.

Number	Concept
1	Adverbe
2	Adjectif possessif
3	Adjectif qualificatif
4	Adjectif démonstratif
5	Adjectif numéral
6	Nom
7	Pronom personnel
8	Pronom possessif
9	Pronom démonstratif
10	Pronom relatif
11	Verbe
12	Verbe d'état
13	Verbe d'action
14	Temps composé
15	Conjonction
16	Temps présent
17	Temps passé
18	Temps futur
19	Proposition
20	Proposition indépendente
21	Proposition principale
22	Proposition subordonnée
23	Sujet
24	Complément direct du verbe
25	Attribut
26	Complément indirect du verbe
27	Complément circonstantiel du verbe.

Table B2. Task Numbers.

Number	Task
1	Given the name of an attribute, the student can select an example of the attribute.
2	Given an example of the attribute, the student can select the name of the attribute.
3	Given the name of a concept, the student can select an example of the concept.
4	Given the name of a concept, the student can select a non-example of the concept.
5	Given an example of a concept, the student can select the name of the concept.
6	Given the name of a concept, the student can select the name of a relevant attribute of the concept.
7	Given the name of a concept, the student can select the name of an irrelevant attribute of the concept.
8	Given the definition of a concept, the student can select the name of the concept.
9	Given the name of a concept, the student can select the definition of the concept.
10	Given the name of a concept, the student can select the name of a subordinate concept.
11	Given the names of two concepts, the student can select the statement which shows the relationship between them.

Table B3. Means, Standard Deviations, and Reliability Estimates for the Whole Test, by Grade.

Grade	Mean Score	Mean Percentage	Standard Deviation	Reliability (Formula KR_{20})
4	65.6**	42.2%	23.0	0.94
5	149.7***	50.9%	35.3	0.96
6	163.9***	55.8%	41.0	0.97
7	168.7***	57.4%	53.1	0.98
8	188.9***	64.3%	49.4	0.98
p*	168.9***	57.5%	48.0	0.98

*Grades 5 to 8 pooled.

**Based on a possible score of 154.

***Based on a possible score of 294.

Table B4. Means, Standard Deviations, and Reliability Estimates for Concept-Based Subscales by Grade.

CONCEPTS	MEAN* Grades						STANDARD DEVIATION Grades						KUDER RELIABILITY Grades					
	4	5	6	7	8	P**	4	5	6	7	8	P**	4	5	6	7	8	P**
1	--	4.60	5.52	4.69	6.41	5.32	--	2.09	2.02	2.15	2.43	2.29	--	.47	.45	.52	.65	.57
2	3.63	7.57	7.04	7.11	8.24	7.48	2.55	2.30	2.31	2.84	2.36	2.53	.65	.64	.61	.77	.72	.70
3	4.96	7.87	8.16	8.01	8.88	8.24	2.48	2.15	2.42	2.66	2.30	2.43	.64	.61	.73	.79	.76	.74
4	3.67	7.17	7.15	7.22	7.87	7.36	2.30	2.94	2.45	2.79	2.51	2.68	.56	.78	.65	.76	.72	.73
5	5.04	7.67	7.15	7.67	8.39	7.73	2.12	1.59	2.15	2.26	1.76	2.03	.50	.26	.64	.66	.52	.58
6	5.60	7.57	8.51	8.43	8.66	8.33	2.28	2.05	1.73	2.03	2.04	2.00	.67	.59	.45	.65	.65	.60
7	3.60	7.21	7.51	7.21	8.16	7.53	2.02	2.34	2.36	2.63	2.31	2.45	.48	.69	.73	.76	.73	.73
8	--	5.35	5.39	5.53	6.81	5.79	--	2.33	2.24	2.48	2.79	2.54	--	.58	.57	.65	.76	.66
9	--	5.11	5.39	5.44	6.35	5.59	--	2.90	2.05	2.54	2.92	2.64	--	.76	.46	.65	.79	.70
10	--	4.82	4.12	4.67	5.69	4.83	--	1.78	1.54	2.21	2.54	2.23	--	.23	.45	.53	.66	.53
11	3.65	5.87	6.73	6.38	6.96	6.51	1.52	2.09	1.77	2.25	2.22	2.13	.31	.60	.42	.66	.65	.60
12	3.33	5.11	5.85	6.03	7.16	6.09	2.00	2.51	2.54	2.56	2.85	2.71	.49	.65	.70	.71	.79	.73
13	4.32	6.40	6.84	6.28	7.28	6.69	2.01	2.11	2.33	2.31	2.11	2.51	.53	.56	.68	.66	.65	.64

(continued)

Table B4. (continued)

CONCEPTS	MEAN*						STANDARD DEVIATION						KUDER RELIABILITY					
	Grades						Grades						Grades					
	4	5	6	7	8	P**	4	5	6	7	8	P**	4	5	6	7	8	P**
14	3.57	6.66	5.78	6.71	7.62	6.71	2.42	2.82	2.16	3.03	2.68	2.78	.64	.73	.49	.78	.74	.73
15	--	4.09	5.64	5.56	5.78	5.34	--	2.11	3.03	2.77	2.67	2.75	--	.51	.78	.73	.71	.72
16	6.05	7.65	8.12	7.59	8.79	8.04	2.64	2.21	2.32	2.44	2.00	2.30	.67	.65	.72	.75	.70	.72
17	4.71	6.99	7.57	7.72	8.65	7.78	2.59	2.10	2.04	2.48	2.02	2.24	.73	.58	.60	.77	.71	.70
18	5.83	7.89	8.33	8.05	8.95	8.32	2.80	2.14	1.94	2.49	1.94	2.18	.74	.60	.57	.74	.65	.66
19	--	4.57	5.55	6.09	5.95	5.61	--	1.95	2.58	2.66	2.26	2.47	--	.45	.71	.78	.61	.66
20	--	2.85	4.71	4.99	4.90	4.46	--	1.54	2.42	2.53	2.06	2.32	--	.31	.68	.71	.55	.65
21	--	2.86	3.37	4.47	3.89	3.73	--	1.84	2.17	2.63	2.01	2.29	--	.45	.61	.70	.46	.61
22	--	3.92	4.37	5.37	6.09	5.02	--	1.61	2.69	2.62	2.16	2.46	--	.16	.76	.72	.54	.60
23	3.61	5.36	6.04	5.82	6.18	5.87	1.74	2.57	2.20	2.65	2.54	2.51	.29	.68	.59	.73	.71	.68
24	--	4.07	5.07	5.82	6.88	5.56	--	1.45	1.82	2.12	2.25	2.15	--	.12	.49	.63	.69	.62
25	3.59	4.36	4.73	5.28	6.63	5.31	1.84	1.82	2.16	2.45	2.26	2.36	.35	.28	.54	.64	.59	.60

(continued)

Table B4. (continued)

CONCEPTS	MEAN*						STANDARD DEVIATION						KUDER RELIABILITY					
	Grades						Grades						Grades					
	4	5	6	7	8	P**	4	5	6	7	8	P**	4	5	6	7	8	P**
26	--	3.21	4.65	4.41	5.59	4.53	--	1.65	2.10	2.13	2.55	2.29	--	.24	.49	.56	.70	.59
27	--	3.78	5.65	7.19	7.43	6.19	--	1.90	2.17	2.48	2.55	2.70	--	.43	.51	.69	.71	.71

*Based on 27 items.
**Grades 5 to 8 pooled.

Table B5. Means, Standard Deviations, and Reliability Estimates for Task-Based Subscales by Grade.

TASK	MEAN*						STANDARD DEVIATION						KUDER RELIABILITY					
	Grades						Grades						Grades					
	4	5	6	7	8	P**	4	5	6	7	8	P**	4	5	6	7	8	P**
1	14.90	15.75	16.35	17.01	18.22	16.91	3.07	3.63	4.15	4.68	4.13	4.30	.69	.73	.68	.80	.75	.76
2	12.60	15.82	16.76	17.16	19.35	17.36	3.40	3.74	4.56	5.13	4.49	4.73	.74	.78	.65	.83	.80	.79
3	12.33	15.10	16.44	16.69	18.85	16.86	2.95	3.95	3.79	5.20	4.95	4.75	.65	.68	.67	.83	.84	.79
4	12.17	14.00	15.63	16.63	18.27	16.28	2.82	3.35	4.09	5.14	4.44	4.62	.61	.73	.55	.83	.80	.78
5	13.41	16.03	18.20	18.85	20.17	18.46	3.33	4.80	3.98	5.21	4.72	4.70	.71	.73	.62	.85	.85	.81
6	9.11	12.52	14.15	13.97	16.97	14.49	2.42	4.80	4.85	5.55	5.63	5.47	.48	.77	.77	.83	.85	.83
7	7.49	10.78	11.68	13.51	14.45	12.76	2.34	4.69	4.98	5.53	5.76	5.46	.50	.78	.75	.82	.84	.81
8	10.46	13.49	14.65	14.00	17.11	15.09	2.76	4.35	4.52	5.36	5.33	5.11	.58	.74	.71	.83	.84	.80
9	10.24	11.94	13.37	13.98	15.61	13.84	2.86	4.51	5.54	6.03	6.00	5.76	.60	.82	.73	.85	.86	.83
10	8.57	14.02	16.52	15.02	17.37	15.78	2.25	4.62	5.22	5.80	4.88	5.34	.43	.84	.78	.87	.82	.84
11	6.74	11.55	11.29	12.31	13.95	12.33	2.22	3.24	4.31	5.08	5.10	4.72	.51	.78	.70	.85	.85	.81

*Based on 27 items.
**Grades 5 to 8 pooled.

APPENDIX C

INSTRUMENTS

	page
Sample Test Book Cover	189
Questions of the Test de Comprehension de Structures Linguistiques	190
Questionnaire for Teachers	249

TEST DE COMPREHENSION DE STRUCTURES LINGUISTIQUES

Nom de l'élève...

Sexe M.......... F........... Date de naissance..................

Ecole............................ Année du cours.....................

DIRECTIVES A L'ELEVE

Afin d'en arriver à savoir ce que les jeunes de ton âge connaissent en grammaire française, j'ai besoin de ton aide. Je te demande donc de répondre aux questions suivantes, en faisant de ton mieux.

Pour chaque question, tu as un choix de trois ou de quatre réponses. Après avoir lu attentivement une question, choisis la réponse qui te semble la bonne. Si tu n'es pas certain de la réponse, choisis celle qui te semble le meilleure.

N'oublie pas de lire chaque numéro au complet avant de faire ton choix.

Pour indiquer ta réponse, encercle la lettre qui est placée devant la réponse que tu crois être la bonne. Ne choisis qu'une seule réponse par numéro.

Travaille à ta propre vitesse.

EXEMPLES:

1. Dans la phrase: "Le gros chat noir dort.", le mot le est
   - a. un adjectif
   - b. une phrase
   - c. un article
2. Quel est le mot souligné qui est un nom de personne?
   - a. Tous les jours, je vais à l'école.
   - b. Mon petit frère s'appelle Pierre.
   - c. Les élèves chantent dans la classe.
   - d. L'automobile de mon père est bleue.

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1-1 Quel est le mot souligné qui ajoute une idée au verbe?

a. Ce danseur paraît élégant.
b. Un éléphant est très pesant.
c. Viviane chante joliment.
d. On craint un vent violent.

1-2 Dans la phrase: "Aujourd'hui, il fait très froid.", le mot très ajoute une idée

a. au pronom
b. au verbe
c. à l'adjectif
d. au nom

1-3 Quel est le mot souligné qui est un adverbe?

a. C'est la nourriture du cheval.
b. Il y a des trous dans mes gants.
c. On cueille délicatement ces fleurs.
d. Il a perdu son nouveau cadran.

1-4 Quel est le mot souligné qui N'EST PAS un adverbe?

a. Nicole écrit soigneusement ses devoirs.
b. Maintenant, il faut faire des tartines.
c. Le beurre est très froid.
d. Jean rit parce que je récite.

1-5 Dans la phrase: "Il faut absolument laver la vaisselle.", le mot absolument est

a. une locution verbale
b. un adjectif
c. un adverbe
d. une locution adverbiale

1-6 L'adverbe doit toujours

a. ajouter une idée à un verbe, à un adjectif ou à un autre adverbe

b. finir en "ment"

c. être placé après le verbe

d. ajouter une idée à un nom ou à un pronom

1-7 Il N'EST PAS nécessaire que l'adverbe

a. ajoute toujours une idée à une autre mot

b. soit toujours invariable

c. ajoute toujours une idée à un autre adverbe

1-8 Un mot invariable qui ajoute une idée à un verbe, à un adjectif ou à un adverbe est

a. un verbe

b. un adjectif

c. une conjonction

d. un adverbe

1-9 L'adverbe est un mot qui

a. donne une qualité au sujet du verbe

b. remplace un verbe, un adjectif ou un autre adverbe

c. ajoute une idée à un verbe, à un adjectif ou à un autre adverbe

d. est une partie d'un verbe à un temps composé

1-10 Un adverbe est une

a. forme de ponctuation

b. sorte d'adjectif

c. partie du discours

d. sorte d'auxiliaire

1-11 Quelle est la phrase qui est vraie?

a. L'adjectif se rapporte à l'adverbe.
b. L'adjectif et l'adverbe sont invariables.
c. L'adverbe peut être formé à l'aide de l'adjectif.
d. L'adjectif ajoute une idée à l'adverbe.

2-2 Dans la phrase: "Place tes livres sur le pupitre.", le mot tes

a. s'accorde avec le verbe
b. dit qui fait l'action
c. indique la possession
d. se rapporte au verbe

2-3 Quel est le mot souligné qui est un adjectif possessif?

a. Jean appelle ses amis.
b. Ce verre est brisé.
c. Le chat a des griffes pointues.
d. La jeune fille se réveille tôt le matin.

2-4 Quel est le mot souligné qui N'EST PAS un adjectif possessif?

a. Paul est allé à ta maison.
b. Demain, je porterai mon manteau neuf.
c. Le chat a renversé son bol de lait.
d. Les élèves préparent cette pièce.

2-5 Dans la phrase: "Leur chat est perdu.", le mot leur est

a. un article
b. un adjectif qualificatif
c. un pronom personnel
d. un adjectif possessif

2-6 L'adjectif possessif doit toujours

a. être immédiatement suivi d'un nom
b. être au singulier
c. indiquer la possession
d. se rapporter au sujet

2-7 Il N'EST PAS nécessaire que l'adjectif possessif

a. indique toujours la possession
b. se rapporte toujours au nom
c. soit toujours au singulier
d. soit toujours placé devant le nom

2-8 Un mot qui se rapporte au nom en indiquant la possession est

a. un pronom relatif
b. un adjectif possessif
c. un pronom personnel
d. un adjectif qualificatif

2-9 L'adjectif possessif est un mot qui

a. prend la place du nom en indiquant la possession
b. se rapporte à l'adjectif en indiquant la possession
c. se rapporte au nom en indiquant la possession
d. prend la place de l'adjectif en indiquant la possession

2-10 L'adjectif possessif est une sorte

a. de groupe de mots
b. d'adjectif
c. d'adjectif démonstratif
d. de pronom

2-11 Quelle est la phrase qui est vraie?

a. L'adjectif possessif s'accorde en genre et en nombre avec le nom.
b. L'adjectif possessif prend la place du nom.
c. Le nom s'accorde en genre et en nombre avec l'adjectif possessif.
d. Le nom prend la place de l'adjectif possessif.

3-1 Quel est le mot souligné qui donne une qualité au nom?

a. Le joueur de balle s'est blessé.
b. Le méchant loup fait peur aux poules.
c. Maman m'a donné un cadeau.
d. Bientôt papa arrivera à la maison.

3-2 Dans la phrase: "Le jeune enfant joue avec son ami.", le mot jeune

a. se rapporte au verbe
b. donne une qualité au nom
c. s'accorde avec l'article
d. prend la place du nom

3-3 Quel est le mot souligné qui est un adjectif qualificatif?

a. Paul porte un béret brun.
b. J'aime jouer avec mes amis.
c. Le chien jappe souvent.
d. Le soleil brille dans le ciel.

3-4 Quel est le mot souligné qui N'EST PAS un adjectif qualificatif?

a. Les jolies robes sont à ma mère.
b. L'oiseau est perché sur une branche.
c. Mon livre de lecture est intéressant.
d. Le grand frère de Paul s'appelle Michel.

3-5 Dans la phrase: "Lise a de beaux cheveux.", le mot beaux est

a. un adjectif possessif
b. un pronom personnel
c. un adjectif qualificatif
d. un complément du nom

3-6 L'adjectif qualificatif doit toujours

a. dire la grandeur d'un objet
b. dire quelque chose d'un nom ou d'un pronom
c. être suivi d'un nom ou d'un pronom
d. donner une qualité à un adjectif

3-7 Il N'EST PAS nécessaire que l'adjectif qualificatif

a. donne toujours une qualité au nom auquel il se rapporte
b. s'accorde toujours en genre avec le nom auquel il se rapporte
c. soit toujours placé devant le nom auquel il se rapporte
d. s'accorde toujours en nombre avec le nom auquel il se rapporte

3-8 Un mot qui donne une qualité au nom s'appelle

a. un pronom
b. un adjectif qualificatif
c. un nom commun
d. un nom qualificatif

3-9 L'adjectif qualificatif est un mot qui

a. qualifie le verbe
b. qualifie l'adverbe
c. donne une qualité au nom
d. donne une qualité à un adjectif

3-10 L'adjectif qualificatif est une sorte

a. d'adjectif
b. d'adjectif démonstratif
c. de nom
d. de pronom

3-11 Quelle est la phrase qui est vraie?

a. L'adjectif qualificatif prend la place du nom.
b. L'adjectif qualificatif s'accorde en genre et en nombre avec le nom.
c. L'adjectif qualificatif est toujours suivi d'un nom.
d. L'adjectif qualificatif indique à qui appartient le nom.

4-1 Quel est le mot souligné qui se rapporte au nom en montrant la chose dont on parle?

a. La petite lampe de poche est brisée.
b. L'institutrice est contente de notre travail.
c. Ce chapeau appartient à ma soeur.
d. Le verre est rempli d'eau.

4-2 Dans la phrase: "Ces fleurs sont fanées.", le mot ces

a. indique à qui appartiennent les fleurs
b. indique de quelles fleurs on parle
c. donne une qualité au verbe
d. prend la place d'un nom

4-3 Quel est le mot souligné qui est un adjectif démonstratif?

a. Le poisson nage dans l'eau.
b. Le petit chat joue avec la laine.
c. Je vois cette fille.
d. Le canot de mon père est rouge.

4-4 Quel est le mot souligné qui N'EST PAS un adjectif démonstratif?

a. Ces enfants sont gentils.
b. J'ai acheté cette plume.
c. Ce livre est à moi.
d. Je vois ce que tu fais.

4-5 Dans la phrase: "Ce hibou me fait peur.", le mot ce est

a. un adjectif démonstratif
b. un adjectif qualificatif
c. un pronom personnel
d. un pronom démonstratif

4-6 L'adjectif démonstratif doit toujours

a. se rapporter à l'adjectif en montrant la chose dont on parle
b. se rapporter au nom en montrant la chose dont on parle
c. se rapporter au nom en indiquant la possession
d. se rapporter au nom en indiquant l'ordre

4-7 Il N'EST PAS nécessaire que l'adjectif démonstratif

a. s'accorde toujours en genre et en nombre avec le nom
b. se rapporte toujours au nom
c. montre toujours ce dont on parle
d. soit toujours imméediatement suivi d'un nom

4-8 Un mot qui se rapporte au nom en montrant la personne, l'animal ou la chose dont on parle est

a. un nom commun
b. un pronom personnel
c. un verbe d'action
d. un adjectif démonstratif

4-9 L'adjectif démonstratif est un mot qui

a. se rapporte au nom en montrant la possession
b. prend la place d'un nom en montrant ce dont on parle
c. se rapporte au nom en montrant l'être ou l'objet dont on parle
d. prend la place d'un nom en montrant la personne qui parle

4-10 L'adjectif démonstratif est une sorte

a. de groupe de mots
b. d'adjectif
c. de pronom démonstratif
d. de pronom

4-11 Quelle est la phrase qui est vraie?

a. Le nom et l'adjectif démonstratif sont toujours suivis d'un verbe.
b. Le nom et l'adjectif démonstratif sont unis par un trait d'union.
c. L'adjectif démonstratif s'accorde avec le nom.
d. L'adjectif démonstratif prend la place du nom.

5-1 Quel est le mot souligné qui se rapporte au nom en indiquant le nombre?

a. Les oreilles du lapin sont roses.
b. Paul a trois petits canards.
c. J'ai acheté une douzaine d'oeufs.
d. Je suis le treizième.

5-2 Dans la phrase: "Jean est assis dans le troisième banc.", le mot troisième indique

a. la possession
b. la grandeur
c. le temps
d. le rang

5-3 Quel est le mot souligné qui est un adjectif numéral?

a. Le mécanicien répare la voiture neuve.
b. Tous les enfants s'amusent.
c. Il a deux yeux bleus.
d. Sept est un numéro chanceux.

5-4 Quel est le mot souligné qui N'EST PAS un adjectif numéral?

a. Pierre est le cinquième garçon de la rangée.
b. Dans le tiroir, je vois six fourchettes.
c. Treize est un numéro chanceux.
d. Il y a quatre éléphants au cirque.

5-5 Dans la phrase: "Ma soeur a vingt ans.", le mot vingt est

a. un nom qui est un nombre
b. un adjectif numéral
c. un nombre ordinal
d. un complément numéral

5-6 L'adjectif numéral doit toujours

a. être au pluriel
b. indiquer le nombre, le rang, ou l'ordre
c. s'accorder avec le sujet
d. se placer devant le verbe

5-7 Il N'EST PAS nécessaire que l'adjectif numéral

a. se rapporte toujours à un nom
b. indique toujours le nombre, le rang ou l'ordre
c. s'accorde toujours avec le nom
d. finisse toujours en "-ième"

5-8 Un mot qui se rapporte au nom en indiquant le nombre, le rang ou l'ordre est

a. un pronom relatif

b. un adjectif numéral

c. un adjectif qualificatif

5-9 L'adjectif numéral est un mot qui

a. se rapporte au verbe en lui donnant une qualité

b. se rapporte au pronom personnel

c. prend la place du nom en indiquant le nombre, le rang ou l'ordre

d. se rapporte au nom en indiquant le nombre, le rang ou l'ordre

5-10 L'adjectif numéral est une sorte

a. d'adjectif

b. d'adverbe

c. de pronom

d. de nom

5-11 Quelle est la phrase qui est vraie?

a. L'adjectif numéral indique le nombre tandis que le nom indique le rang.

b. L'adjectif numéral se rapporte au nom.

c. Quand l'adjectif numéral est pluriel, le nom est singulier.

d. L'adjectif numéral doit être placé immédiatement devant le nom.

6-1 Quel est le mot souligné qui désigne une chose?

a. Luc vient justement d'arriver.

b. Le livre de lecture est déchiré.

c. Le vieux soulier n'est plus utile.

d. Quand ça lui plaît, il sourit.

6-2 Dans la phrase: "Jean est parti.", le mot Jean

a. décrit une action passée
b. détermine le temps du verbe
c. désigne une personne
d. exprime un état

6-3 Quel est le mot souligné qui est un nom?

a. Le soleil brillera demain.
b. Il soigna sa blessure.
c. Mon père sera là dans un instant.
d. Mon maître aime jouer à la balle.

6-4 Quel est le mot souligné qui N'EST PAS un nom?

a. Alice apprend la musique.
b. Il grimpa dans l'arbre.
c. Mon grand frère est en Angleterre.
d. La forêt abrite beaucoup d'oiseaux.

6-5 Dans la phrase: "Tu connais bien ta grammaire.", le mot grammaire est

a. un nom
b. un pronom
c. un adjectif
d. un adverbe

6-6 Le nom doit toujours

a. être sujet du verbe
b. être placé au début de la phrase
c. être accompagné d'un article
d. désigner une personne, un animal ou une chose

6-7 Il N'EST PAS nécessaire que le nom

a. ait toujours un genre et un nombre
b. désigne toujours une personne, un animal ou une chose
c. soit toujours propre ou commun
d. soit toujours accompagné d'un article

6-8 Un mot qui désigne une personne, un animal ou une chose est

a. un adjectif
b. un adverbe
c. un nom
d. un verbe

6-9 Le nom est un mot qui

a. s'accorde en genre et en nombre avec un adjectif
b. désigne une personne, un animal ou une chose
c. est placé au début de chaque phrase
d. détermine le temps et le mode du verbe

6-10 Le nom est

a. une forme de ponctuation
b. une partie du discours
c. une sorte de genre
d. une sorte de pronom

6-11 Quelle est la phrase qui est vraie?

a. Le nom s'accorde en genre et en nombre avec l'adjectif.
b. Le nom s'accorde en personne et en nombre avec l'adjectif.
c. L'adjectif s'accorde en genre et en nombre avec le nom.
d. L'adjectif est toujours placé devant le nom.

7-1 Quel est le mot souligné qui peut être remplacé par un nom?

a. *Les* enfants glissent avec leur traineau.
b. Le *nouveau* chandail de Marie est jaune.
c. La neige *cache* les plantes.
d. Jean va au magasin avec *elle*.

7-2 Dans la phrase: "*Nous* sommes contents.", le mot *nous*

a. peut prendre la place d'un nom
b. donne une qualité au verbe
c. indique la possession
d. exprime un état

7-3 Quel est le mot souligné qui est un pronom personnel?

a. *Ma* cousine viendra me visiter.
b. Le chien dresse *les* oreilles.
c. *Il* court très vite.
d. *Paul* marche à pas de loup.

7-4 Quel est le mot souligné qui N'EST PAS un pronom personnel?

a. Papa viendra avec *nous* au théâtre.
b. *Notre* maison a quatre chambres à coucher.
c. *Vous* irex à l'école.
d. Veux-*tu* avoir un tour de bicyclette?

7-5 Dans la phrase: "*Il* saute à la corde.", *Il* est

a. un nom commun
b. un pronom possessif
c. un pronom personnel
d. un nom propre

7-6 Le pronom personnel doit toujours

a. indiquer la possession
b. prendra la place d'un nom
c. se placer devant le verbe
d. être sujet du verbe

7-7 Il N'EST PAS nécessaire que le pronom personnel

a. prenne toujours la place d'un nom
b. soit toujours placé au début de la phrase
c. soit toujours à la 1ère, 2ième ou 3ième personne
d. soit toujours du même genre et du même nombre que le nom dont il prend la place

7-8 Un mot qui prend la place d'un nom et qui indique l'une des trois personnes grammaticales est

a. un pronom personnel
b. un adjectif
c. un pronom possessif
d. un complément

7-9 Le pronom personnel est un mot qui

a. prend la place d'un nom et qui indique une des personnes grammaticales
b. se rapporte au nom en montrant l'être ou la chose dont on parle
c. prend la place d'un pronom en indiquant le possesseur
d. relie l'adjectif qualificatif au nom

7-10 Le pronom personnel est une sorte

a. d'adjectif possessif
b. de pronom possessif
c. de temps
d. de pronom

7-11 Quelle est la phrase qui est vraie?

a. Le nom et le pronom personnel se rapportent l'un à l'autre.

b. Quand le pronom personnel est singulier, le nom qu'il remplace est pluriel.

c. Le pronom personnel peut prendre la place d'un nom.

d. Le pronom personnel contient toujours moins de lettres que le nom qu'il remplace.

8-1 Quel est le groupe de mots soulignés qui prend la place d'un nom en indiquant la possession?

a. Votre maison est située près de la gare.

b. Nous visiterons la soeur de Paul.

c. Mon frère a perdu son couteau de poche.

d. Tes cheveux sont noirs et les miens sont bruns.

8-2 Dans la phrase: "Mes souliers sont vieux tandis que les tiens sont neufs.", les tiens

a. donne une qualité au verbe

b. indique la possession

c. prend la place du pronom

d. s'accorde avec l'adjectif

8-3 Quel est le groupe de mots soulignés qui est un pronom possessif?

a. Tes amies sont toujours très gentilles.

b. Il faut que le soldat se tienne bien droit.

c. L'automobile de ton oncle est dans le garage

d. Je te prêterai ma plume si tu me prêtes la tienne.

8-4 Quel est le groupe de mots soulignés qui N'EST PAS un pronom possessif?

a. Ton dessin est aussi beau que le mien.

b. La robe de Lise est pareille à la mienne.

c. Notre père est allé au concert avec nous.

8-5 Dans la phrase: "Mon ballon est rouge, le leur est vert.", le leur est

a. un pronom personnel

b. un pronom relatif

c. un pronom possessif

d. un pronom démonstratif

8-6 Le pronom possessif doit toujours

a. prendre la place d'un nom

b. être placé devant le verbe

c. commencer par le mot "le"

d. se rapporter au nom

8-7 Il N'EST PAS nécessaire que le pronom possessif

a. indique toujours la possession

b. soit toujours formé de deux mots

c. prenne toujours la place d'un nom

d. commence toujours par "le"

8-8 Un mot qui prend la place d'un nom en indiquant la possession est

a. un adjectif possessif

b. un pronom possessif

c. un article possessif

d. un nom possessif

8-9 Le pronom possessif est un mot qui

a. prend la place d'un pronom en indiquant la possession

b. prend la place d'un nom en indiquant la possession

c. se rapporte au nom en indiquant la possession

d. se rapporte au pronom en indiquant la possession

8-10 Le pronom possessif est une sorte

a. de pronom
b. d'adjectif
c. de pronom personnel
d. d'adjectif possessif

8-11 Quelle est la phrase qui est vraie?

a. Le pronom possessif est du même genre et du même nombre que le nom dont il prend la place.
b. Le pronom possessif indique le possesseur du nom dont il prend la place.
c. Le pronom possessif et le nom indiquent la possession.
d. Le nom prend la place du pronom possessif.

9-1 Quel est le mot souligné qui prend la place d'un nom en montrant l'être dont on parle?

a. A l'automne, cet oiseau quitte notre pays.
b. Le garçon que tu voies est dans ma classe.
c. Maman vient à l'école avec nous.
d. Celle qui chante demeure près de chez-moi.

9-2 Dans la phrase: "Ces cahiers sont à toi mais ceux-ci sont à moi.", ceux ci

a. qualifie le nom
b. donne une qualité au verbe
c. prend la place du pronom
d. prend la place du nom

9-3 Quel est le mot souligné qui est un pronom démonstratif?

a. Celui qui parle fort me fatigue.
b. J'aime cette chanson française.
c. Ces sauterelles font peur au bébé.
d. Ecrivez avec ce crayon.

9-4 Quel mot souligné N'EST PAS un pronom démonstratif?

a. Des deux cadeaux, je préfère celui de Marc.
b. Ces timbres sont à Jean mais je cherche ceux de Pierre.
c. Cette voiture file très rapidement.
d. Cela intéresse tous les enfants.

9-5 Dans la phrase, "De toutes ces voitures, j'aime celle-ci.", celle-ci est

a. un pronom possessif
b. un pronom indéfini
c. un pronom démonstratif
d. un pronom personnel

9-6 Le pronom démonstratif doit toujours

a. montrer ce dont on parle
b. être le sujet de la phrase
c. prendre un trait d'union
d. s'accorder avec le verbe

9-7 Il N'EST PAS nécessaire que le pronom démonstratif

a. prenne toujours la place d'un nom
b. montre toujours l'être dont on parle
c. commence toujours avec la lettre "c"
d. soit toujours composé de deux mots

9-8 Un mot qui prend la place d'un nom en montrant l'être dont on parle est

a. un adjectif démonstratif
b. un pronom démonstratif
c. un adverbe démonstratif
d. un nom démonstratif

9-9 Le pronom démonstratif est un mot qui

a. prend la place du pronom en indiquant la personne dont on parle

b. prend la place du nom en montrant l'être dont on parle

c. se rapporte au nom en indiquant la possession

d. se rapporte au pronom en montrant l'être dont on parle

9-10 Le pronom démonstratif est un sort

a. de pronom

b. d'adjectif

c. d'adjectif démonstratif

d. de pronom personnel

9-11 Quelle est la phrase qui est vraie?

a. Le pronom démonstratif est du même genre ed du même nombre que le nom qu'il remplace.

b. Le pronom démonstratif et le nom qu'il remplace ne sont jamais dans la même phrase.

c. Le pronom démonstratif et le nom qu'il remplace sont toujours dans la même phrase.

d. Le pronom démonstratif est toujours placé au début de la phrase tandis que le nom peut être placé n'importe où.

10-1 Quel est le mot souligné qui relie deux propositions?

a. Tu vois le garçon qui aide son père.

b. La nouvelle émission de télévision est intéressante.

c. Marie part de bonne heure pour l'école.

d. Les nuages blancs se promènent dans le ciel.

10-2 Dans la phrase: "La robe que tu portes est très belle.", le mot que

a. qualifie le pronom

b. prend la place du nom

c. qualifie le nom

d. indique la possession

10-3 Quel est le mot souligné qui est un pronom relatif?

a. La fille qui t'a parlé est ma soeur Julie.
b. Le lit de poupée est à moi.
c. Il joue au hockey.
d. Quel mot as-tu souligné?

10-4 Quel est le mot souligné qui N'EST PAS un pronom relatif?

a. L'école que je fréquente est située près de chez-nous.
b. Il a brisé quelques fenêtres à l'école.
c. Nous aiderons les familles qui sont dans la misère.
d. La personne dont tu parles viendra nous visiter.

10-5 Dans la phrase: "C'est dans le tiroir que tu trouveras tes gants.", le mot que est

a. pronom relatif
b. pronom possessif
c. pronom personnel
d. pronom démonstratif

10-6 Le pronom relatif doit toujours

a. être le sujet du verbe
b. avoir trois lettres
c. relier deux noms
d. relier deux propositions

10-7 Il N'EST PAS nécessaire que le pronom relatif

a. prenne toujours la place d'un nom ou d'un pronom
b. se place toujours au milieu de la phrase
c. relie toujours deux propositions
d. soit toujours le premier mot de la proposition subordonnée

10-8 Un mot qui prend la place d'un nom en reliant deux propositions est

a. une conjonction

b. un pronom relatif

c. une préposition

d. un pronom personnel

10-9 Le pronom relatif est un mot qui

a. prend la place d'un nom ou d'un pronom en reliant deux phrases

b. relie deux propositions indépendantes

c. prend la place d'un nom ou d'un pronom en reliant deux propositions

d. relie la proposition indépendante à la proposition principale

10-10 Le pronom relatif est une sorte

a. d'adjectif

b. de conjonction

c. de pronom

d. de proposition

10-11 Quelle est la phrase qui est vraie?

a. Le nom peut être sujet du pronom relatif.

b. Le pronom relatif relie deux noms ou deux pronoms.

c. Le nom et le pronom relatif prennent toujours la place d'un autre mote.

d. Le pronom relatif est du même genre et du même nombre que le nom qu'il remplace.

11-1 Quel est le mot souligné qui exprime l'action?

a. Jean mange un biscuit.

b. Luc aime la pluie ce matin.

c. Tous les enfants jouent.

d. Nicole berce la jolie poupée.

11-2 Dans la phrase: "Le chien saute.", le mot saute

a. exprime l'action
b. décrit le nom
c. fait l'action
d. reçoit l'action

11-3 Quel est le mot souligné qui est un verbe?

a. La neige tombe lentement.
b. Nicole fait une balle de neige.
c. Nous avons froid.
d. Vous aimex jouer dehors.

11-4 Quel est le mot souligné qui N'EST PAS un verbe?

a. Regardez les enfants.
b. La lumière est forte.
c. Il mange lentement.
d. Jean part demain.

11-5 Dans la phrase: "Le chien saute.", le mot saute est

a. un adjectif
b. un adverbe
c. un complément
d. un verbe

11-6 Le verbe doit toujours

a. avoir un complément
b. exprimer l'action ou l'état
c. être placé après le nom
d. faire l'action

11-7 Il N'EST PAS nécessaire que le verbe

- a. décrive toujours l'action ou l'état
- b. s'accorde toujours avec son sujet
- c. puisse toujours se conjuguer
- d. ait toujours un complément

11-8 Un mot qui décrit l'action ou l'état est

- a. un attribut
- b. un complément
- c. un sujet
- d. un verbe

11-9 Un verbe est un mot qui

- a. décrit l'action ou l'état
- b. fait l'action
- c. reçoit l'action
- d. donne une qualité à l'action

11-10 Le verbe est

- a. une partie du discours
- b. une sorte de terminaison
- c. une sorte d'adverbe
- d. une partie du groupe complément

11-11 Quelle est la phrase qui est vraie?

- a. Le sujet est toujours placé devant le verbe.
- b. Le sujet fait l'action ou subit l'état exprimé par le verbe.
- c. Le sujet reçoit toujours l'action du verbe.
- d. Chaque verbe n'a qu'un seul sujet.

12-1 Quel est le verbe souligné qui exprime l'état?

a. Pose tes livres sur la table.
b. Charles joue avec son ami.
c. La pluie tombe encore.
d. L'instituteur semble fatigué.

12-2 Dans la phrase: "L'automobile de mon maître est blanche.", le mot souligné

a. exprime l'état
b. exprime l'action
c. fait l'action
d. subit l'état

12-3 Quel est le mot souligné qui est un verbe d'état?

a. Je patine avec mon ami.
b. Nous sommes au mois de décembre.
c. Le soleil se lève le matin.
d. Il soigne sa blessure.

12-4 Quel est le mot souligné qui N'EST PAS un verbe d'état?

a. Les canards sont sur le lac.
b. Maman semble inquiète.
c. Ce jeu paraît amusant.
d. La pluie tombe sur les toits.

12-5 Dans la phrase: "Le chat est dans son panier.", le mot souligné est

a. un verbe d'action
b. un verbe d'état
c. un attribut du verbe
d. un adverbe

12-6 Le verbe d'état doit toujours

a. être le verbe "être"
b. être un verbe au temps présent
c. être au mode indicatif
d. exprimer l'état de son sujet

12-7 Il N'EST PAS nécessaire que le verbe d'état

a. indique toujours l'état de son sujet
b. s'accorde toujours avec son sujet
c. puisse toujours se conjuguer
d. soit toujours le seul verbe dans la phrase

12-8 Un mot qui relie un attribut au sujet est

a. un verbe d'état
b. un conjugaison
c. un verbe d'action
d. un complément direct

12-9 Le verbe d'état est un mot qui

a. exprime une action
b. peut servir à introduire un attribut
c. désigne une personne, un animal ou une chose
d. donne une qualité à un verbe

12-10 Le verbe d'état est une sorte

a. de mode
b. d'adverbe
c. de verbe
d. de temps

12-11 Quelle est la phrase qui est vraie?

a. Le verbe d'état et le verbe d'action peuvent avoir un complément direct.

b. Le verbe d'action s'accorde avec le sujet et le verbe d'état s'accorde avec l'attribut.

c. Le verbe d'action peut avoir un complément direct et le verbe d'état peut avoir un attribut.

d. Le verbe d'état est une sorte de verbe d'action.

13-1 Quel est le mot souligné qui exprime l'action?

a. Ce jeu paraît amusant.

b. Le feuillage semble épais.

c. La pluie tombe sur les toits.

d. L'oiseau est dans les feuilles.

13-2 Dans la phrase: "Le chauffeur conduit le camion.", le mot conduit nous dit

a. l'état de la personne dont on parle

b. ce que fait la personne dont on parle

c. qui fait l'action

d. qui reçoit l'action

13-3 Quel est le mot souligné qui est un verbe d'action?

a. Nous sommes au mois de décembre.

b. Le chien paraît blessé.

c. L'hiver, je patine avec mes amis.

d. Le maître semble de bonne humeur.

13-4 Quel est le mot souligné qui N'EST PAS un verbe d'action?

a. Les élèves visiteront le musée vendredi.

b. Le feu détruit la forêt.

c. L'avion atterit sur la piste.

d. Il me paraît sage.

13-5 Dans la phrase: "Le chat boit son lait.", le mot boit est

a. un verbe d'état

b. un verbe d'action

c. un adverbe

d. un complément du verbe

13-6 Le verbe d'action doit toujours

a. être le mot qui dit ce qui se passe

b. être placé après son sujet

c. être le seul verbe de la phrase

d. être à un temps composé

13-7 Il N'EST PAS nécessaire que le verbe d'action

a. indique toujours ce qui se passe

b. s'accorde toujours toujours avec son sujet

c. puisse toujours se conjuguer

d. soit toujours au mode indicatif

13-8 Un mot qui indique ce que font les personnes, les animaux ou les choses est

a. un nom

b. un pronom

c. un verbe d'état

d. un verbe d'action

13-9 Le verbe d'action est un mot qui

a. indique ce que sont les personnes, les animaux ou les choses

b. désigne une personne, un animal ou une chose

c. indique ce que font les personnes, les animaux ou les choses

d. indique celui qui reçoit l'action exprimée par le verbe

13-10 Le verbe d'action est une sorte

a. d'adverbe
b. de mode
c. de participe
d. de verbe

13-11 Quelle est la phrase qui est vraie?

a. Le complément direct fait l'action du verbe.
b. Le complément direct reçoit l'action du verbe.
c. Le complément direct donne une qualité au verbe d'action.
d. Le complément direct s'accorde avec le verbe d'action.

14-1 Quel est le mot souligné qui est un auxiliaire?

a. Claude semble énervé.
b. Les champs sont arrosés par la pluie.
c. Plusiers élèves lisent ce livre.
d. La porte a été fermée par Pierre.

14-2 Dans la phrase: "Le vent a déraciné ces arbres.", le mot souligné est

a. un adverbe
b. un complément
c. un auxiliaire
d. un participe passé

14-3 Quel est le verbe souligné qui est conjugué à un temps composé?

a. Georges avait un beau manteau.
b. Gisèle est une jolie fille.
c. Ils vont chercher les meubles.
d. Les cadeaux sont emballés.

14-4 Quel est le groupe de mots soulignés qui N'EST PAS un verbe au temps composé?

a. Les fenêtres restent ouvertes le jour.

b. Les roses sont fanées.

c. L'avion a atterri sur la piste.

d. La neige avait couvert le toit.

14-5 Dans la phrase: "Nicolas a écrit une lettre.", a écrit est un verbe

a. au temps présent

b. à un temps simple

c. à un temps composé

d. au temps futur

14-6 Le temps composé doit toujours être formé

a. de l'auxiliaire avoir et d'un participe passé

b. de l'auxiliaire être et d'un participe passé

c. d'un auxiliaire et d'un participe présent

d. d'un auxiliaire et d'un participe passé

14-7 Il N'EST PAS nécessaire que le temps composé

a. ait toujours plus d'un mot

b. soit toujours au passé

c. ait toujours un auxiliaire

d. ait toujours un participe

14-8 Un verbe formé d'un auxiliaire et d'un participe passé est un verbe

a. au temps composé

b. au temps simple

c. au participe présent

d. au futur simple

14-9 Le temps composé est un verbe qui est formé

a. d'un auxiliaire avoir et d'un participe passé
b. d'un auxiliaire être et d'un participe passé
c. d'un auxiliaire et d'un participe présent
d. d'un auxiliaire et d'un participe passé

14-10 Le temps composé est une sorte

a. de participe passé
b. de passé composé
c. de temps
d. d'auxiliaire

14-11 Quelle est la phrase qui est vraie?

a. Le participe passé est une partie du temps composé.
b. Le participe passé s'accorde avec le temps composé.
c. Le participe passé est une sorte de temps composé.
d. Le participe passé et le temps composé sont toujours au temps passé.

15-1 Quel est le mot souligné qui unit des mots de même fonction?

a. Le samedi et le dimanche sont jours de congés.
b. Le bébé apprend à parler.
c. Ton crayon est sur la table.
d. J'écris pour la première fois.

15-2 Dans la phrase: "Tu boiras du lait ou du jus.", le mot ou

a. sert à unir deux noms
b. sert à unir un nom à un article
c. introduit une proposition
d. indique un lieu

15-3 Quel est le mot souligné qui est un conjonction?

a. Paul et Marc sont des frères.
b. Il est le meilleur athlète.
c. La glace est lisse.
d. Pierre joue au hockey.

15-4 Quel est le mot souligné qui N'EST PAS une conjonction?

a. Il fait très chaud à l'Equateur.
b. Il pleure car il a mal.
c. Je dors puisque je suis fatigué.
d. Je viendrai si tu le veux.

15-5 Dans la phrase: "Il tremblait car il avait peur.", le mot car est

a. une proposition
b. une préposition
c. un article
d. une conjonction

15-6 Une conjonction doit toujours unir

a. deux noms, deux pronoms ou deux verbes
b. deux adjectifs qualificatifs
c. deux mots qui sont sujets du verbe
d. des mots de même fonction ou des propositions

15-7 Il N'EST PAS toujours nécessaire que la conjonction

a. soit toujours invariable
b. serve toujours à unir
c. soit toujours entre les mots ou les propositions qui sont unis
d. soit toujours placée au milieu de la phrase

15-8 Un mot qui unit des mots de même fonction ou des propositions est

a. une conjonction

b. un adverbe

c. une interjection

d. un article

15-9 Une conjonction est un mot qui

a. unit des mots de même fonction ou des propositions

b. unit seulement des propositions indépendantes

c. sert à exprimer la joie, la douleur ou un autre sentiment

d. sert à unir le complément indirect au verbe

15-10 Une conjonction est

a. une partie du discours

b. une forme de ponctuation

c. une sorte de proposition

d. une sorte de pronom

15-11 Quelle est la phrase qui est vraie?

a. Une conjonction peut unir deux propositions indépendantes.

b. Toute proposition indépendante contient une conjonction.

c. Toute conjonction sert à compléter une proposition indépendante.

d. Une proposition ne contient jamais de conjonction.

16-1 Quelle est la phrase qui indique ce qui a lieu en ce moment?

a. Paul travaillait souvent le soir.

b. Jean quitte la maison.

c. L'autobus est parti déjà.

d. Je mangerai en arrivant chez nous.

16-2 Dans la phrase: "L'oiseau vole très haut.", le mot vole exprime une action

a. qui a lieu au moment où l'on parle

b. qui aura lieu demain

c. qui a eu lieu hier

d. qui n'a pas eu lieu encore

16-3 Quel est le mot souligné qui est un verbe au temps présent?

a. Il portait un béret vert.

b. Il connaît mon frère Jean.

c. Il regardait la télévision.

d. Papa arrivera tard aujourd'hui.

16-4 Quel est le mot souligné qui N'EST PAS un verbe au temps présent?

a. Michel est un bon garçon.

b. Maman porte une belle robe.

c. Mon père ira au bureau.

d. Je connais Pierre.

16-5 Dans la phrase: "Pierre sourit toujours.", le mot sourit est un verbe au temps _

a. futur

b. imparfait

c. présent

d. plus-que-parfait

16-6 Le présent doit toujours

a. finir en "e", "es", "e", "ons", "ez", "ent"

b. être au mode indicatif

c. indiquer ce qui a lieu en ce moment

d. exprimer une action

16-7 Il N'EST PAS nécessaire que le présent

a. exprime toujours une action ou un état
b. indique toujours ce qui a lieu au moment où l'on parle
c. soit toujours un verbe du premier groupe
d. fasse toujours partie d'un mode

16-8 Un mot qui dit ce qui a lieu en ce moment est un verbe au temps

a. présent
b. passé
c. futur
d. composé

16-9 Le présent indique

a. ce qui aura lieu plus tard
b. le lieu où se passe l'action
c. ce qui a lieu au moment où l'on parle
d. la personne qui fait l'action

16-10 Le présent est une sorte de

a. mot accompagnant le verbe
b. temps du verbe
c. mode du verbe
d. terminaison du verbe

16-11 Quelle est la phrase qui est vraie?

a. Un verbe au temps présent est toujours au mode indicatif.
b. Le mode indicatif est une sorte de temps présent.
c. Le temps présent et le mode indicatif sont deux sortes de verbe.
d. Le temps présent est un des temps du mode indicatif.

17-1 Quelle est la phrase qui indique ce qui a déjà eu lieu?

a. Jean a couru tout le long du chemin.
b. Le chasseur tue l'ours.
c. Papa salue son voisin chaque matin.
d. Je mesure la hauteur de la porte.

17-2 Dans la phrase: "L'autobus est parti à deux heures.", est parti indique

a. ce qui a lieu au moment où l'on parle
b. ce qui aura lieu dans un instant
c. ce qui a déjà eu lieu
d. ce qui va se passer plus tard

17-3 Quel groupe de mots soulignés est un verbe au temps passé?

a. Maman me connaît trop bien.
b. Mon grand-père est déjà très vieux.
c. Mon maître a fini son travail tard.
d. Le policier ira visiter mon oncle.

17-4 Quel est le groupe de mots soulignés qui N'EST PAS un verbe au temps passé?

a. La journée fut agréable.
b. Il ne sont pas allés au cirque.
c. Regarde! L'avion atterrit sur la piste.
d. J'ai fini mon devoir.

17-5 Dans la phrase: "Pierre a cueilli une rose pour Marie.", a cueilli est un verbe au temps

a. présent
b. passé
c. simple
d. futur

17-6 Le passé doit toujours

a. être un temps composé
b. faire partie du mode indicatif
c. indiquer ce qui a déjà eu lieu
d. se terminer par "é"

17-7 Il N'EST PAS nécessaire que le passé

a. indique toujours ce qui a déjà eu lieu
b. finisse toujours en "é"
c. exprime toujours une action ou un état
d. soit toujours un temps d'un verbe

17-8 Un mot qui dit ce qui a déjà eu lieu est un verbe au temps

a. présent
b. passé
c. futur
d. infinitif

17-9 Le passé est un temps qui indique

a. ce qui aura lieu
b. ce qui a lieu
c. ce qui a déjà eu lieu
d. ce qui doit avoir lieu

17-10 Le passé est une sorte

a. d'auxiliaire
b. de temps
c. de mode
d. de terminaison

17-1 Quelle est la phrase qui est vraie?

a. Le passé et le verbe sont toujours des temps composés.
b. Le passé est un temps du verbe.
c. Le verbe s'accorde avec le passé.
d. Le passé et le verbe sont des terminaisons.

18-1 Quelle est la phrase qui indique ce qui aura lieu?

a. Je prendrai des vitamines.
b. J'ai acheté une bicyclette.
c. J'aimais ma grand-mère.
d. Je souris parce qui je suis heureuse.

18-2 Dans la phrase: "Le train partira dans une heure.", le mot partira indique

a. ce qui a lieu en ce moment
b. ce qui aura lieu bientôt
c. ce qui a déjà eu lieu
d. ce qui se passe maintenant

18-3 Quel est le mot souligné qui est un verbe au temps futur?

a. Pierre a averti Paul.
b. Maman m'aimait beaucoup.
c. Mon ami caressa son chien.
d. Mon père sera là dans un instant.

18-4 Quel est le mot souligné qui N'EST PAS un verbe au temps futur?

a. Le soleil brillera demain.
b. La lune ne paraîtra pas ce soir.
c. L'avion avertira la tour de contrôle.
d. Il soigna sa blessure.

18-5 Dans la phrase: "Je partirai tôt demain matin.", le verbe partirai est au temps

a. passé

b. futur

c. présent

d. imparfait

18-6 Le futur doit toujours

a. être un temps simple

b. exprimer ce qui aura lieu

c. être un temps composé

d. exprimer une action

18-7 Il N'EST PAS nécessaire que le futur

a. indique toujours ce qui aura lieu

b. indique toujours une action ou un état

c. soit toujours un temps du verbe

d. soit toujours un temps simple

18-8 Un mot qui dit ce qui aura lieu dans un moment est un verbe au temps

a. présent

b. futur

c. passé

d. imparfait

18-9 Le futur est un temps qui indique

a. ce qui a lieu

b. ce qui aura lieu

c. ce qui a eu lieu

d. ce qui avait lieu

18-10 Le futur est une sorte de

a. mode du verbe
b. mot accompagnant le verbe
c. temps du verbe
d. terminaison du verbe

18-11 Quelle est la phrase qui est vraie?

a. Le futur est un temps du verbe.
b. Le futur et le verbe sont des terminaisons.
c. Le futur ne fait pas partie de tous les verbes.
d. le futur s'accorde avec le verbe.

19-1 Quel est le groupe de mots soulignés qui contient un verbe conjugué?

a. Avant de partir, habille-toi chaudement.
b. Il a donné un cadeau à ma soeur.
c. J'aime mon oncle parce qui'il m'apporte des cadeaux.
d. Il semble être très jeune.

19-2 Dans la phrase: "Les enfants aiment manger des bonbons.", le mot aiment est

a. un verbe conjugué
b. un verbe à l'infinitif
c. un adverbe
d. un participe présent

19-3 Quel est le groupe de mots soulignés qui est une proposition?

a. Elle a enseigné les mathématiques à ma soeur.
b. Les garçons de la classe aiment jouer au hockey.
c. L'homme, que tu as vu à l'hôpital, est mort.
d. Pourtant, il a fait son possible.

19-4 Quelle est la partie soulignée qui N'EST PAS une proposition?

a. Tais toi!

b. Julie ira voir un concert au centre récréatif.

c. Marc a passé son examen de français parce qu'il a étudié.

d. Elle entre, elle se retourne et elle ferme la porte.

19-5 Dans la phrase: "Il est avec sa maman et maintenant tout va bien.", la partie soulignée est

a. un groupe verbe

b. une préposition

c. un groupe sujet

d. une proposition

19-6 La proposition doit toujours

a. avoir un verbe conjugué

b. commencer par un pronom relatif

c. être dépendante d'une autre proposition

d. commencer par une conjonction

19-7 Il N'EST PAS nécessaire que la proposition

a. soit toujours une phrase ou fasse toujours partie d'une phrase

b. ait toujours un verbe conjugué

c. soit toujours accompagné d'une autre proposition

d. ait toujours un groupe verbe

19-8 Un groupe de mots qui contient un verbe conjugué est

a. un group sujet

b. une proposition

c. une locution adverbiale

d. une préposition

19-9 La proposition peut être

a. un groupe de mots qui contient un verbe conjugué
b. un groupe sujet et un groupe complément
c. deux phrases
d. un mot qui donne une qualité au nom

19-10 La proposition peut être

a. une phrase
b. un groupe sujet
c. un groupe complément
d. une locution

19-11 Quelle est la phrase qui est vraie?

a. Dans une phrase, il peut y avoir plus d'une proposition.
b. Dans une phrase il y a toujours une seule proposition.
c. Toute proposition est une phrase.
d. Dans une proposition il peut y avoir plus d'une phrase.

20-1 Quelle est la proposition soulignée qui ne dépend d'aucune autre et dont aucune autre ne dépend?

a. C'est un pays qui fait la guerre.
b. Croyez-vous que Luc se dépêche?
c. Ma soeur lave le plancher et elle le cire.
d. Quand il s'ennuie, il visite ses amis.

20-2 Dans la phrase: "Le garçon brise la fenêtre et il s'excuse.", le groupe de mots il s'excuse

a. dépend du reste de la phrase
b. ne dépend pas du reste de la phrase
c. relie les deux parties de la phrase
d. ne contient pas de verbe conjugué

20-3 Quelle est la proposition soulignée qui est une proposition indépendante?

a. Elle et son frère se baignent et reviennent tôt.

b. J'achète un gâteau pour Georges qui demain aura dix ans.

c. La crème que vous aimez est sur la table.

d. Quand ils dorment, nous sommes tranquilles.

20-4 Quelle est le groupe de mots soulignés qui N'EST PAS une proposition indépendante?

a. Il fait noir et il faut rentrer à la maison.

b. Il se trouve drôle quand il raconte cette histoire.

c. Je multiplie par deux ou j'ajoute quatre.

d. Le vent souffle.

20-5 Dans la phrase: "L'auto arrête et je traverse la rue.", le groupe de mots "L'auto arrête" est une proposition

a. dépendante

b. indépendante

c. principale

d. subordonnée

20-6 La proposition indépendante doit toujours

a. être celle qui n'a aucune autre proposition qui dépend d'elle

b. être la première proposition de la phrase

c. être la seule proposition de la phrase

d. avoir un sujet, verbe et un complément

20-7 Il N'EST PAS nécessaire que la proposition indépendante

a. ait toujours un verbe conjugué

b. ait une autre proposition qui dépend d'elle

c. ait toujours un groupe verbe

d. soit toujours la seule proposition dans la phrase

20-8 Une proposition qui ne dépend d'aucune autre et dont aucune autre ne dépend est une proposition

a. dépendante
b. indépendante
c. principale
d. subordonnée

20-9 La proposition indépendante est une proposition qui

a. dépend de la subordonnée
b. dépend de la principale
c. dépend de la principale et de la subordonnée
d. dépend d'aucune autre et dont aucune autre ne dépend

20-10 La proposition indépendante est une sorte de

a. principale
b. subordonnée
c. groupe sujet
d. proposition

20-11 Quelle est la phrase qui est vraie?

a. Une conjonction peut unir deux propositions indépendantes.
b. Toute proposition indépendante contient une conjonction.
c. Toute conjonction sert à compléter une proposition indépendante.
d. Une proposition ne contient jamais de conjonction.

21-1 Quelle est la proposition soulignée dont dépend une autre proposition?

a. Il faudrait que je voie ma mère.
b. Parce qu'il est mort, son frère pleure.
c. Pierre joue du piano et Marie danse.
d. Mon père chante quand il neige.

21-2 Dans la phrase: "Je ne suis pas sorti parce que j'étais fatigué.", la partie soulignée

a. est la seule proposition de la phrase

b. dépend d'une autre proposition

c. a une autre proposition qui dépend d'elle

d. n'a aucune autre proposition qui dépend d'elle

21-3 Quel est le groupe de mots soulignés qui est une proposition principale?

a. Quand on est en classe, on doit écouter.

b. Bien qu'il soit malade, il va à l'école.

c. Il ouvre la porte et il entre.

d. Je suis certain qu'il peut venir.

21-4 Quelle est la partie soulignée qui N'EST PAS une proposition principale?

a. Je suis content qu'il viendra à ma fête.

b. Parce qu'il fait très chaud, ouvre la porte.

c. Quand il entrera, ne lui parle pas.

d. Viens me voir demain afin que l'on puisse discuter.

21-5 Dans la phrase: "Bien que je l'aime beaucoup, il semble me détester.", la partie soulignée est une

a. proposition d'état

b. proposition indépendante

c. proposition principale

d. proposition subordonnée

21-6 La proposition principale doit toujours

a. être complétée par une subordonnée

b. être au début de la phrase

c. avoir un sujet, un verbe et un complément

d. contenir plus de mots que le reste de la phrase

21-7 Il N'EST PAS nécessaire que la proposition principale

a. ait toujours une autre proposition qui dépend d'elle

b. soit toujours la plus longue de la phrase

c. contienne toujours au moins un verbe

d. ait toujours une proposition subordonnée

21-8 La proposition dont dépend une ou plusieurs autres propositions qui la complètent s'appelle

a. une proposition dépendante

b. une proposition indépendante

c. une proposition principale

d. une proposition verbale

21-9 La proposition principale est un groupe de mots

a. dont dépend une ou plusieurs autres propositions qui la complètent

b. qui dépend d'une autre proposition et la complète

c. qui a un sujet mais qui ne dépend pas de la présence d'un verbe

d. qui n'a aucune autre proposition qui dépend d'elle

21-10 La proposition principale est une sorte de

a. complément

b. locution

c. phrase

d. proposition

21-11 Quelle est la phrase qui est vraie?

a. La proposition subordonnée complète la proposition principale.

b. La proposition principale dépend de la proposition subordonnée.

c. La proposition principale et la proposition subordonnée sont indépendantes l'une de l'autre.

d. La proposition principale est toujours placée devant la proposition subordonnée.

22-1 Quelle partie soulignée est une proposition qui dépend d'une autre proposition?

a. Il est évident que j'étudie beaucoup.
b. Jean Vanier est un homme reconnu.
c. L'ami, qu'il a connu en France, arrive ce matin.
d. Parce que je travaille bien, ma mère me récompense.

22-2 Dans la phrase: "Jean aime la fille qui a les cheveux blonds.", la proposition soulignée

a. ne dépend d'aucune autre proposition
b. dépend d'une autre proposition
c. est celle dont une autre dépend
d. est la seule proposition de la phrase

22-3 Quelle est la partie soulignée qui est une proposition subordonnée?

a. Le crime a eu lieu la semaine dernière dans la nuit.
b. L'erreur que tu as faite n'est pas grave.
c. Parce que j'étais malade, je suis resté au lit.
d. Paul s'est assis et a regardé une émission de télévision.

22-4 Quelle est la partie soulignée qui N'EST PAS une proposition subordonnée?

a. Il faut que tu sois présent.
b. Avant qu'il entre, je lui demande son nom.
c. Quand j'ai téléphoné, quelqu'un m'a répondu.
d. Parce que c'était important qu'il parte vite, je l'ai conduit à la gare.

22-5 Dans la phrase: "Je suis allé au magasin, parce que maman avait besoin de lait.", la partie soulignée est

a. une proposition démonstratif
b. une proposition indépendante
c. une proposition principale
d. une proposition subordonnée

22-6 La proposition subordonnée doit toujours

a. commencer par le mot "qui"
b. être accompagné d'une seule autre proposition
c. dépendre du reste de la phrase
d. être la dernière proposition de la phrase

22-7 Il N'EST PAS nécessaire que la proposition subordonnée

a. donne toujours une explication au reste de la phrase
b. soit toujours plus courte que la proposition principale
c. contienne toujours au moins un verbe
d. dépende toujours d'une autre proposition

22-8 La proposition qui dépend d'une autre proposition et la complète est

a. une proposition indépendante
b. une proposition principale
c. une proposition subordonnée
d. une proposition composée

22-9 La proposition subordonnée est une proposition

a. qui dépend d'une autre proposition et la complète
b. qui ne dépend d'aucune autre proposition
c. qui complète une proposition indépendante
d. qui a moins de mots que les autres propositions

22-10 La proposition subordonnée est une sorte de

a. proposition principale
b. phrase
c. phrase composée
d. proposition

22-11 Quelle est la phrase qui est vraie?

a. La proposition subordonnée complète la proposition principale.

b. La proposition principale dépend de la proposition subordonnée.

c. La proposition principale et la proposition subordonnée sont indépendantes l'une de l'autre.

d. La proposition principale est toujours placée devant la proposition subordonnée.

23-1 Quel est le mot souligné qui nous dit qui fait l'action?

a. Je nage avec mes amis.

b. La souris se cache dans un coin.

c. Trois élèves sont absents.

d. Tu sais tricoter des bas.

23-2 Dans la phrase: "Les enfants écoutent la radio.", le mot enfants nous dit

a. ce qui se passe

b. qui reçoit l'action

c. qui fait l'action

d. comment l'action se passe

23-3 Quel est le mot souligné qui est un sujet?

a. La lecture est facile.

b. Les bonbons sont durs.

c. Le lait vient des vaches.

d. Il a frappé la balle.

23-4 Quel est le mot souligné qui N'EST PAS un sujet?

a. Ce chien veut me mordre la main.

b. Pendant les vacances, il s'amuse.

c. Toutes les plumes servent à écrire.

d. Le lapin a de grosses dents blanches.

23-5 Dans la phrase: "La reine du pays voyage souvent.", le mot reine est

a. complément du nom
b. complément du sujet
c. sujet du verbe
d. attribut du sujet

23-6 La sujet doit toujours

a. être placé devant le verbe
b. faire l'action ou subir l'état
c. être un nom
d. être un pronom

23-7 Il N'EST PAS nécessaire que le sujet

a. détermine la personne du verbe
b. détermine le nombre du verbe
c. soit toujours placé devant le verbe
d. fasse l'action ou subisse l'état exprimé par le verbe

23-8 Un mot qui indique qui fait l'action exprimée par le verbe est

a. un complément
b. un attribut
c. un sujet
d. un adverbe

23-9 Un sujet est un mot qui

a. remplace le nom
b. fait l'action ou subit l'état
c. reçoit l'action ou décrit l'état
d. complète le verbe

23-10 Le sujet est une partie

a. de l'attribut
b. de la préposition
c. du verbe
d. de la proposition

23-11 Quelle est la phrase qui est vraie?

a. Le verbe s'accorde en genre et en nombre avec son sujet.
b. Le verbe s'accorde parfois avec son sujet.
c. Le verbe s'accorde en personne et en nombre avec son sujet.
d. Le sujet s'accorde en personne et en nombre avec son verbe.

24-1 Quel est le mot souligné qui reçoit l'action exprimée par le verbe?

a. Monique bat sa soeur.
b. Jean mange une pomme.
c. Nicole écrit de beaux mots.
d. Pierrette est une jolie fille.

24-2 Dans la phrase: "L'élève ouvre son livre.", le mot livre

a. nous dit qui ouvre
b. s'accorde avec le mot "son"
c. reçoit l'action du verbe à l'aide d'une préposition
d. répond à la question "ouvre quoi?"

24-3 Quel est le mot souligné qui est un complément direct?

a. Cette blouse se lave bien.
b. Je connais la réponse juste.
c. Le facteur apporte les lettres.
d. Le lait est frais.

24-4 Quel est le mot souligné qui N'EST PAS un complément direct?

a. Il joue du violon.
b. Je donne un cadeau à mon père.
c. Je prends ma place.
d. Mon frère chante cette chanson.

24-5 Dans la phrase: "Lucie lance la balle.", le mot balle est

a. un attribut
b. un complément direct
c. un complément indirect
d. un sujet

24-6 Un complément direct est toujours un mot qui

a. répond à la question "quoi?"
b. répond à la question "qui?"
c. suit le verbe
d. reçoit l'action

24-7 Il N'EST PAS nécessaire que le complément direct

a. adjoute toujours une idée au verbe
b. reçoive toujours l'action exprimée par le verbe
c. réponde toujours à la question "qui?" ou "quoi?"
d. soit toujours placé après le verbe

24-8 Un mot qui reçoit l'action du verbe sans l'aide d'une préposition est

a. un attribut
b. un complément direct
c. un complément indirect
d. un sujet

24-9 Le complément direct est un mot qui

a. indique l'état ou l'action
b. reçoit l'action du verbe avec l'aide d'une préposition
c. fait l'action exprimée par le verbe
d. reçoit l'action du verbe sans l'aide d'une préposition

24-10 Le complément direct est une partie

a. de l'adverbe
b. de l'attribut
c. de la phrase
d. du groupe verbe

24-11 Quelle est la phrase qui est vraie?

a. Le complément direct fait l'action du verbe.
b. Le complément direct reçoit l'action du verbe.
c. Le complément direct donne une qualité au verbe d'action.
d. Le complément direct s'accorde avec le verbe d'action.

25-1 Quel est le mot souligné qui donne une qualité au sujet?

a. Le garçon est souvent malade.
b. Le garçon a frappé le chien enragé.
c. L'eau dest trop salée.
d. Les lumières s'allument rapidement.

25-2 Dans la phrase: "Les voisins sont gentils." , le mot gentils

a. fait l'action du verbe
b. donne une qualité au sujet
c. détermine le genre et le nombre du sujet
d. reçoit l'action du verbe

25-3 Quel est le mot souligné qui est un attribut?

a. La lettre est sur la table.
b. La crème est sûre.
c. Il reçoit de l'aide.
d. Le laitier aime travailler fort.

25-5 Dans la phrase: "Le vent est froid.", le mot froid est

a. attribut
b. complément circonstanciel
c. complément direct
d. complément indirect

25-6 Un attribut doit toujours

a. être un adjectif
b. dire quelque chose du sujet
c. suivre le verbe être
d. être un nom

25-7 Il N'EST PAS nécessaire que l'attribut

a. s'accorde toujours en nombre avec le sujet
b. soit toujours introduit par un verbe d'état
c. soit toujours un adjectif
d. se rapporte toujours au sujet

25-8 Un mot qui dit quelque chose du sujet à l'aide d'un verbe d'état est

a. un attribut
b. un complément direct
c. un article
d. un adjectif possessif

25-9 L'attribut est un mot qui

a. dit quelque chose du sujet à l'aide d'un verbe d'état
b. complète le verbe sans l'aide d'une préposition
c. reçoit l'action exprimée par le verbe
d. fait l'action exprimée par le verbe

25-10 L'attribut est

a. une forme de ponctuation
b. une sorte d'adverbe
c. une partie du groupe sujet
d. une partie du discours

25-11 Quelle est la phrase qui est vraie?

a. L'attribut s'accorde avec le sujet du verbe.
b. Tout sujet a un attribut.
c. Quand le sujet est au début de la phrase, l'attribut est à la fin.
d. L'attribut s'accorde en genre et en nombre avec le verbe.

26-1 Quel est le mot souligné qui reçoit l'action du verbe à l'aide d'une préposition?

a. Il fait noir très tôt.
b. Louise cueille toutes les pommes.
c. Il le donne à son père.
d. Jacques est très brave.

26-2 Dans la phrase: "Luc parle de ses cadeaux.", le mot cadeaux

a. fait l'action du verbe
b. décrit le sujet du verbe
c. reçoit directement l'action
d. reçoit indirectement l'action

26-3 Quel est le mot souligné qui est un complément indirect?

a. Léon aime la tarte aux pommes.
b. Il y a des filles et des garçons sages.
c. Le chien dort toute la journée.
d. Il parle à son frère.

26-4 Quel est le mot souligné qui N'EST PAS un complément indirect?

a. Ce manteau appartient à Marc.
b. Il gagnera la course.
c. Le timbre colle à ses doigts.
d. Je joue aux billes.

26-5 Dans la phrase: "Lucie parle de son chien.", le mot chien est un complément

a. direct
b. indirect
c. circonstanciel
d. attribut

26-6 Le complément indirect doit toujours

a. répondre à la question "qui?"
b. compléter le verbe
c. être placé à la fin d'une phrase
d. suivre immédiatement son verbe

26-7 Il N'EST PAS nécessaire que le complément indirect

a. réponde à une question telle que "à qui?", "à quoi?", "de quoi?" posée après le verbe
b. reçoive toujours indirectement l'action du verbe
c. soit toujours placé après le verbe

26-8 Un mot qui reçoit l'action du verbe à l'aide d'une préposition est

a. un sujet du verbe
b. un attribut du sujet
c. un complément direct
d. un complément indirect

26-9 Un complément indirect est un mot qui

a. remplace le verbe
b. se rapporte au sujet
c. reçoit l'action du verbe à l'aide d'une préposition
d. s'accorde avec le complément à l'aide d'une préposition

26-10 Le complément indirect est une partie

a. du groupe verbe
b. de la phrase
c. du complément circonstanciel
d. du groupe sujet

26-11 Quelle est la phrase qui est vraie?

a. Le complément indirect reçoit l'action du verbe à l'aide d'une préposition.
b. Le complément indirect reçoit l'action du verbe sans l'aide d'une préposition.
c. Le verbe reçoit l'action de son complément indirect.
d. Le complément indirect s'accorde en genre et en nombre avec son verbe.

27-1 Quel est le mot souligné qui indique le temps de l'action?

a. Je parle parce que je veux.
b. Il travaille ce matin.
c. Le cheval mâche le foin.
d. Le train partira bientôt.

27-2 Dans la phrase: "Le canard vole dans le ciel.", le mot ciel fait

a. celui qui fait l'action
b. celui qui reçoit l'action
c. l'action du verbe
d. une circonstance de lieu

27-3 Quel est le mot souligné qui est un complément circonstanciel?

a. Pour être en bonne santé Pierre boit du lait.
b. Un ours dort dans cette caverne.
c. Les élèves marchent le long du sentier.
d. Il y a des épingles au fond de ce panier.

27-4 Quel est le mot souligné qui N'EST PAS un complément circonstanciel?

a. Les étoiles brillent ce soir.
b. Dans le champ, il y a des fleurs.
c. Le ski est un sport d'hiver.
d. Le chasseur marche dans la forêt.

27-5 Dans la phrase: "On patine sur la glace.", le mot glace est un complément

a. indirect
b. indirect
c. circonstanciel
d. du nom

27-6 Le complément circonstanciel doit toujours

a. être placé à la fin d'une phrase
b. être un adverbe
c. suivre une préposition
d. compléter l'idée exprimée par le verbe

27-7 Il N'EST PAS nécessaire que le complément circonstanciel

a. fasse toujours connaître une circonstance

b. ajoute toujours une idée au verbe

c. soit toujours placé après le verbe

d. réponde toujours à une question posée après le verbe

27-8 Un mot qui ajoute une idée au verbe en faisant connaître "où", "quand" ou "comment" se passe l'action est un complément

a. du nom

b. circonstanciel

c. direct

d. indirect

27-9 Le complément circonstanciel est un mot qui

a. ajoute une idée au sujet

b. fait connaître ce qui reçoit l'action du verbe

c. s'accorde avec un adverbe

d. fait connaître "où", "quand", "comment" ou "pourquoi" se passe l'action

27-10 Le complément circonstanciel est une partie

a. de la locution verbale

b. du complément indirect

c. du groupe sujet

d. du groupe complément

27-11 Quelle est la phrase qui est vraie?

a. Dans chaque phrase le verbe conjugué a un complément circonstanciel.

b. Le complément circonstanciel est toujours placé après le verbe

c. Le complément circonstanciel s'accorde avec le verbe.

d. Le complément circonstanciel complète l'idée exprimée par le verbe.

1. Numéro de l'école:______________________

2. Numéro de la classe:____________________

3. Manuel de grammaire française (ex.: Mon livre de français, 5^e^ année) et/ou autre documentation de base (ex.: fiches) utilisé par l'élève:

____

____

____

4. Temps par semaine consacré à l'enseignement de la grammaire française (approximativement): ________________________________

5. Sur la page suivante, indiquer au moyen d'un crochet

   a) si l'on a enseigné aux élèves de la classe les concepts qui figurent sur la liste

   b) si on les a à peine introduits ou

   c) si on ne les a pas du tout enseignés.

		A) Enseigné	B) A peine introduit	C) Pas enseigné
1.	Adverbe			
2.	Adjectif possessif			
3.	Adjectif qualificatif			
4.	Adjectif démonstratif			
5.	Adjectif numéral			
6.	Nom			
7.	Pronom personnel			
8.	Pronom possessif			
9.	Pronom démonstratif			
10.	Pronom relatif			
11.	Verbe			
12.	Verbe d'état			
13.	Verbe d'action			
14.	Temps composé			
15.	Conjonction			
16.	Temps présent			
17.	Temps passé			
18.	Temps futur			
19.	Proposition			
20.	Proposition indépendante			
21.	Proposition principale			
22.	Proposition subordonnée			
23.	Sujet			
24.	Complément direct du verbe			
25.	Attribut			
26.	Complément indirect du verbe			
27.	Complément circonstanciel du verbe			

APPENDIX D

RESULTS

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Table D-1. Grammar Texts Used Listed in Order of Popularity.

Mon Livre de français, serie A, Montreal, Frères du Sacre Coeur, 1963-1964.

Langue française, Emile Giroux, Lavel, Editions F.M., 1967.

Mon Orthographe, Gascon Adelard and Laurier Carrière, Toronto, Ginn.

Exercises de grammaire française, Alain de Bray, Montreal, Centre de psychologie et de pédagogie.

La grammaire à l'école active, Marguerite Picard, Germaine Foex and P. Paquet, Montreal, Centre éducatif.

Fiches de langue française, Emile Giroux, Laval, Editions F.M 1966.

Grammaire du français vivant, J. Lafitte-Houssat, F. Annarumma, P. Durand and R. Monteil, Paris, Larousse.

Le français à l'école active, Henri Longpré, Montreal, Ecole active.

Ateliers de lecture, Fleuramagil, Laval, Editions F.M.

Le Sablier, Robert Préfontaine and Gisèle Côté-Préfontaine, Montreal, Beauchemin.

Table D-2. Frequency (%) of teacher response "taught" (T), "introduced" (I), and "not taught" (NT) for individual concepts by grade.

Concept	Grade 4			Grade 5			Grade 6			Grade 7			Grade 8		
	T	I	NT	T	I	NT	T	I	NT	T	I	NT	T	I	NT
1. Adverbe	3	8	90	7	27	66	47	29	24	41	27	32	57	17	26
2. Adjectif possessif	49	41	10	68	20	11	84	10	6	91	9	0	89	11	0
3. Adjectif qualificatif	100	0	0	98	2	0	96	2	2	98	2	0	98	2	0
4. Adjectif démonstratif	46	31	23	70	23	7	86	10	4	89	9	2	89	11	0
5. Adjectif numéral	62	21	18	55	25	20	69	20	10	67	22	11	76	22	2
6. Nom	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0
7. Pronom personnel	69	15	15	77	20	2	84	12	4	82	9	9	85	13	2
8. Pronom possessif	10	10	79	39	18	43	61	24	14	60	11	29	78	13	9
9. Pronom démonstratif	3	10	87	41	9	50	63	20	16	58	16	27	72	20	9
10. Pronom relatif	0	0	100	7	16	77	35	24	41	44	20	36	61	33	11
11. Verbe	100	0	0	100	0	0	98	0	2	100	0	0	100	0	0
12. Verbe d'état	63	21	16	66	20	14	73	23	4	91	7	2	96	2	2
13. Verbe d'action	80	14	6	84	9	7	81	17	2	98	2	0	96	4	0
14. Temps composé	53	21	26	68	23	9	88	10	2	89	7	4	91	7	2

Table D-2 (continued)

Concept	Grade 4			Grade 5			Grade 6			Grade 7			Grade 8		
	T	I	NT	T	I	NT	T	I	NT	T	I	NT	T	I	NT
15. Conjonction	3	3	95	9	9	82	29	35	37	24	36	40	48	20	33
16. Temps présent	100	0	0	100	0	0	100	0	0	100	0	0	100	0	0
17. Temps passé	92	3	5	98	2	0	100	0	0	100	0	0	98	2	0
18. Temps futur	100	0	0	100	0	0	98	2	0	100	0	0	100	0	0
19. Proposition	5	5	90	32	18	50	83	13	4	76	9	16	74	17	9
20. Proposition indépendente	0	5	95	2	18	80	73	20	6	69	13	18	74	13	13
21. Proposition principale	0	3	97	0	20	80	65	29	6	67	16	18	72	11	17
22. Proposition subordonnée	0	3	97	0	20	80	63	31	6	67	18	16	72	11	17
23. Sujet	77	15	8	100	0	0	100	0	0	100	0	0	100	0	0
24. Complément direct du verbe	21	26	54	61	16	23	98	2	0	98	2	0	96	4	0
25. Attribut	13	18	69	48	30	23	80	12	8	93	7	0	89	9	2
26. Complément indirect du verbe	5	23	72	39	20	41	94	4	2	96	4	0	89	9	2
27. Complément circonstantiel du verbe	8	21	72	25	20	55	94	4	2	89	7	4	89	9	2

Table D-3. Matrix of success rate (%) of grade four students* on individual items**.

Concept	Task	1	2	3	4	5	6	7	8	9	10	11
2. Adjectif possessif		--	44	55	55	56	33	37	21	11	38	21
3. Adjectif qualificatif		54	36	57	45	61	34	23	41	34	51	34
4. Adjectif démonstratif		28	33	72	32	61	32	20	20	24	32	41
5. Adjectif numéral		46	66	34	26	56	38	32	42	42	51	27
6. Nom		75	72	79	75	54	39	33	68	51	6	25
7. Pronom personnel		78	36	35	62	50	34	16	38	47	47	42
11. Verbe		66	13	79	57	78	21	26	41	20	29	10
12. Verbe d'état		24	29	38	16	43	26	23	15	14	31	9
13. Verbe d'action		63	43	70	58	63	50	19	40	32	39	12
14. Temps composé		25	43	46	33	45	6	33	41	18	29	6
16. Temps présent		54	66	39	49	60	8	22	71	60	47	24
17. Temps passé		42	47	43	34	61	8	45	57	60	48	32
18. Temps futur		52	64	57	64	66	36	25	39	61	46	39

Table D-3 (continued)

Concept	Task	1	2	3	4	5	6	7	8	9	10	11
23. Sujet		37	43	45	33	34	20	33	46	18	11	13
24. Complément direct du verbe		3	50	17	15	24	28	33	7	7	16	12
25. Attribut		31	18	33	--	44	33	11	28	28	8	11

*Data used includes only those subjects "taught" the specific concepts to which individual items relate.

**Data on items for which five or fewer classes have been "taught" are not included.

Table D-4. Matrix of success rate (%) of grade five students* on individual items**.

Concept	Task 1	2	3	4	5	6	7	8	9	10	11
2. Adjectif possessif	--	43	66	65	55	35	39	37	28	36	34
3. Adjectif qualificatif	69	51	52	52	63	42	30	50	54	54	51
4. Adjectif démonstratif	27	55	74	39	61	38	28	16	27	51	40
5. Adjectif numéral	40	70	53	25	59	44	41	59	48	59	38
6. Nom	88	77	87	81	63	52	44	71	57	14	25
7. Pronom personnel	76	59	57	59	63	44	19	40	36	60	55
8. Pronom possessif	38	26	60	87	25	37	50	34	33	42	19
9. Pronom démonstratif	43	56	51	36	59	56	21	33	47	48	35
11. Verbe	77	18	82	69	84	20	31	45	26	19	12
12. Verbe d'état	29	26	45	24	43	33	30	18	17	30	33
13. Verbe d'action	69	54	70	66	73	41	33	42	44	52	15
14. Temps composé	34	48	62	41	64	19	45	50	22	24	13
16. Temps présent	63	76	46	62	73	17	33	75	58	56	30
17. Temps passé	51	68	66	37	66	23	49	57	63	56	30

Table D-4 (continued)

Concept	Task	1	2	3	4	5	6	7	8	9	10	11
18. Temps futur		66	78	55	71	69	53	32	49	72	50	44
19. Proposition		46	64	29	2	23	51	46	13	51	31	55
23. Sujet		44	55	53	38	43	21	40	45	15	12	14
24. Complément direct du verbe		27	51	30	38	49	14	24	11	17	34	15
25. Attribut		33	53	61	--	59	39	17	37	28	11	19
26. Complément indirect du verbe		7	13	31	30	40	25	38	29	21	35	13
27. Complément circonstantiel du verbe		55	47	33	32	14	49	35	82	65	45	44

*Data used includes only those subjects "taught" the specific concepts to which individual items relate.

**Data on items for which five or fewer classes have been "taught" are not included.

Table D-5. Matrix of success rate (%) of grade six students* on individual items.

Concept	Task	1	2	3	4	5	6	7	8	9	10	11
1. Adverbe		49	58	63	63	49	45	37	26	29	7	32
2. Adjectif possessif		--	49	59	71	66	47	41	49	26	49	43
3. Adjectif qualificatif		76	68	66	70	78	50	47	69	60	69	62
4. Adjectif démonstratif		34	66	79	47	57	52	36	23	39	50	49
5. Adjectif numéral		52	81	47	14	68	71	57	52	55	76	39
6. Nom		92	77	90	82	64	72	56	69	81	14	42
7. Pronom personnel		82	67	51	68	69	52	34	53	54	58	66
8. Pronom possessif		49	52	62	93	47	37	45	44	35	42	32
9. Pronom démonstratif		40	59	47	28	72	57	19	47	36	50	36
10. Pronom relatif		70	60	58	63	66	43	29	32	33	56	56
11. Verbe		85	34	97	81	92	44	35	58	25	27	22
12. Verbe d'état		43	38	51	34	58	56	40	27	24	48	23
13. Verbe d'action		82	63	77	70	76	64	36	42	53	54	23
14. Temps composé		57	70	63	55	71	40	36	54	32	22	17
15. Conjonction		67	0	65	50	54	26	48	36	46	7	30

Table D-5 (continued)

Concept	Task	1	2	3	4	5	6	7	8	9	10	11
16. Temps présent		78	91	66	71	78	27	50	89	74	60	47
17. Temps passé		66	78	68	54	80	31	40	68	76	62	50
18. Temps futur		71	96	57	77	85	63	52	54	77	61	55
19. Proposition		60	64	48	17	42	53	36	35	36	51	67
20. Proposition indépendente		34	25	31	26	37	40	38	62	56	54	30
21. Proposition principale		13	41	23	39	24	42	32	37	18	44	29
22. Proposition subordonnée		26	33	48	35	55	30	46	53	49	30	29
23. Sujet		45	59	72	55	59	33	56	46	29	27	15
24. Complément direct du verbe		26	67	35	48	54	13	40	9	24	53	23
25. Attribut		38	65	50	--	44	36	30	62	34	16	38
26. Complément indirect du verbe		22	29	47	42	42	20	50	13	29	52	16
27. Complément circonstantiel du verbe		65	53	34	34	30	53	31	73	73	55	50

*Data used includes only those subjects "taught" the specific concepts to which individual items relate.

Table D-6. Matrix of success rate (%) of grade seven* students on individual items.

Concept	Task	1	2	3	4	5	6	7	8	9	10	11
1. Adverbe		48	53	69	64	50	44	26	33	33	15	37
2. Adjectif possessif		--	58	67	70	60	50	50	59	45	50	54
3. Adjectif qualificatif		86	78	62	67	77	50	56	69	70	67	75
4. Adjectif démonstratif		49	78	69	59	55	54	40	33	48	59	59
5. Adjectif numéral		54	75	63	35	67	61	59	55	62	83	51
6. Nom		96	82	91	90	80	79	66	78	85	26	54
7. Pronom personnel		88	72	59	73	80	60	49	65	54	68	72
8. Pronom possessif		51	70	57	94	46	32	38	63	41	64	32
9. Pronom démonstratif		41	60	55	43	76	88	32	54	40	45	48
10. Pronom relatif		60	55	74	60	81	45	44	51	35	60	56
11. Verbe		84	37	96	94	92	56	44	53	43	36	29
12. Verbe d'état		49	54	67	55	73	57	45	49	36	56	34
13. Verbe d'action		81	66	79	78	89	67	46	64	62	62	40
14. Temps composé		69	66	67	54	66	45	31	54	35	28	17
15. Conjonction		86	0	65	51	72	53	66	55	70	29	62

Table D-6 (continued)

Concept	Task	1	2	3	4	5	6	7	8	9	10	11
16. Temps présent		78	93	68	74	73	34	42	92	85	66	50
17. Temps passé		78	87	71	58	81	35	50	77	83	67	49
18. Temps futur		79	96	71	85	85	75	52	54	81	63	72
19. Proposition		71	72	56	26	43	59	51	28	45	45	80
20. Proposition indépendente		38	27	31	26	35	50	32	71	62	55	62
21. Proposition principale		13	51	32	46	36	46	35	37	26	57	32
22. Proposition subordonnée		31	36	49	59	67	32	56	57	46	50	32
23. Sujet		50	51	81	71	73	44	63	48	35	39	19
24. Complément direct du verbe		40	78	43	62	67	27	32	14	23	61	40
25. Attribut		39	56	51	--	53	30	30	63	46	14	23
26. Complément indirect du verbe		25	31	49	59	64	37	50	17	42	63	26
27. Complément circonstantiel du verbe		71	61	55	54	47	63	27	83	86	62	51

*Data used includes only those subjects "taught" the specific concepts to which individual items relate.

Table D-7. Matrix of success rate (%) of grade eight students* on individual items.

Concept	Task	1	2	3	4	5	6	7	8	9	10	11
1. Adverbe		61	55	83	75	57	67	51	49	59	19	41
2. Adjectif possessif		--	76	84	81	69	63	53	80	49	63	64
3. Adjectif qualificatif		87	87	74	73	88	59	66	83	76	73	80
4. Adjectif démonstratif		44	79	78	71	64	62	48	36	54	68	60
5. Adjectif numéral		53	85	67	39	81	76	63	74	82	89	51
6. Nom		97	83	95	95	83	80	75	77	90	36	70
7. Pronom personnel		95	67	61	79	84	75	52	79	59	77	75
8. Pronom possessif		66	75	73	90	56	40	53	76	53	56	38
9. Pronom démonstratif		54	77	50	39	84	85	29	59	53	69	58
10. Pronom relatif		71	54	69	49	77	46	46	45	41	64	56
11. Verbe		92	41	97	94	97	63	48	56	51	50	46
12. Verbe d'état		71	62	77	63	84	64	55	59	48	68	32
13. Verbe d'action		91	78	94	92	89	72	53	65	57	68	48
14. Temps composé		88	80	81	63	77	50	39	64	43	42	27
15. Conjonction		86	0	76	44	73	53	57	60	67	25	42

Table D-7 (continued)

Concept	Task	1	2	3	4	5	6	7	8	9	10	11
16. Temps présent		85	95	74	77	83	44	53	96	93	68	73
17. Temps passé		77	90	73	65	84	47	52	82	86	74	60
18. Temps futur		84	95	78	86	86	78	45	75	89	72	74
19. Proposition		80	80	68	29	59	56	51	47	53	52	86
20. Proposition indépendente		61	42	46	48	45	53	39	86	79	58	42
21. Proposition principale		11	54	32	65	47	59	64	56	36	47	38
22. Proposition subordonnée		50	58	66	64	81	55	64	70	69	58	38
23. Sujet		64	66	85	74	82	59	65	54	52	46	17
24. Complément direct du verbe		53	87	47	73	84	31	45	18	32	70	48
25. Attribut		46	69	56	--	46	46	46	71	51	10	45
26. Complément indirect du verbe		33	51	60	63	60	40	55	30	45	54	37
27. Complément circonstantiel du verbe		80	75	56	60	50	79	44	86	86	71	59

*Data used includes only those subjects "taught" the specific concepts to which individual items relate.

Table D-8. Matrix of success rate (%) of students* from all grades on individual items.

Concept	Task	1	2	3	4	5	6	7	8	9	10	11
1. Adverbe		50	56	71	67	50	51	38	36	40	14	35
2. Adjectif possessif		--	55	67	70	62	47	45	53	34	49	46
3. Adjectif qualificatif		75	65	62	62	74	47	45	63	59	63	61
4. Adjectif démonstratif		38	66	75	52	59	50	36	27	41	54	51
5. Adjectif numéral		50	77	54	28	67	60	52	58	59	73	42
6. Nom		90	78	89	85	69	65	55	73	73	20	44
7. Pronom personnel		84	61	53	69	70	54	35	56	51	63	63
8. Pronom possessif		52	58	63	91	47	37	45	56	41	51	31
9. Pronom démonstratif		45	64	50	36	74	73	24	50	40	54	45
10. Pronom relatif		65	55	67	55	77	43	39	42	36	61	56
11. Verbe		81	29	90	79	89	42	37	51	33	32	24
12. Verbe d'état		47	44	58	42	63	50	41	37	31	50	27
13. Verbe d'action		79	62	79	74	79	60	39	52	51	56	29
14. Temps composé		59	64	66	51	67	36	37	54	32	29	17
15. Conjonction		80	0	67	46	64	43	56	48	59	19	41

Table D-8 (continued)

Concept	Task	1	2	3	4	5	6	7	8	9	10	11
16. Temps présent		72	85	59	67	74	27	40	85	75	59	46
17. Temps passé		63	75	65	50	75	30	47	69	74	62	45
18. Temps futur		71	86	64	77	79	62	41	55	77	59	57
19. Proposition		67	71	53	21	44	55	45	33	45	46	75
20. Proposition indépendente		44	31	35	33	39	47	37	72	66	55	41
21. Proposition principale		12	49	31	50	36	49	44	44	27	49	33
22. Proposition subordonnée		36	42	55	53	68	39	56	60	55	46	33
23. Sujet		49	56	69	56	60	36	53	48	31	28	15
24. Complément direct du verbe		35	71	38	55	63	22	36	13	24	55	29
25. Attribut		39	60	53	--	49	37	32	60	41	13	32
26. Complément indirect du verbe		24	33	49	51	52	31	49	20	36	53	24
27. Complément circonstantiel du verbe		69	61	46	47	39	62	33	79	79	60	51

*Data used includes only those subjects "taught" the specific concepts to which individual items relate.

Table D-9. Means, standard deviations, and sample sizes for concepts "taught" by grade.

Concept	Grade 4			Grade 5			Grade 6			Grade 7			Grade 8		
	M	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
1. Adverbe	33	5	2	30	5	4	42	13	23	43	9	20	56	13	27
2. Adjectif possessif	37	13	22	44	10	32	50	12	42	56	14	42	68	12	42
3. Adjectif qualificatif	43	16	42	52	14	45	65	14	48	69	13	45	77	9	46
4. Adjectif démonstratif	36	12	20	41	13	33	48	13	43	55	11	41	60	9	42
5. Adjectif numéral	42	11	25	49	13	26	56	12	35	60	12	30	69	9	36
6. Nom	53	9	42	60	12	46	67	12	50	75	10	47	80	8	47
7. Pronom personnel	44	16	29	52	13	36	59	13	42	67	13	38	73	10	40
8. Pronom possessif	33	6	5	41	10	17	49	12	31	54	11	28	61	10	37
9. Pronom démonstratif	27	0	1	42	15	18	45	12	32	53	14	27	60	11	34
10. Pronom relatif	--	--	--	37	10	3	52	12	17	57	16	21	56	14	28
11. Verbe	40	11	42	44	11	46	55	10	49	61	11	47	67	8	47
12. Verbe d'état	24	11	25	30	11	31	40	17	36	53	16	42	62	11	45
13. Verbe d'action	44	9	30	51	11	39	58	11	40	67	11	45	73	9	45
14. Temps composé	29	10	22	38	12	32	47	13	44	48	11	42	60	10	43

Table D-9 (continued)

Concept	Grade 4			Grade 5			Grade 6			Grade 7			Grade 8		
	M	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
15. Conjonction	35	0	1	26	13	4	39	11	14	55	10	12	53	8	23
16. Temps présent	46	11	42	54	12	46	67	10	50	69	11	47	76	7	47
17. Temps passé	44	13	39	51	14	45	61	12	50	67	11	47	72	10	46
18. Temps futur	50	14	42	58	15	46	68	9	49	74	10	46	78	9	47
19. Proposition	32	4	2	37	11	14	46	15	40	52	13	36	60	13	35
20. Proposition indépendente	--	--	--	18	0	1	39	14	36	43	14	33	55	12	35
21. Proposition principale	--	--	--	--	--	--	32	12	32	37	10	32	46	12	34
22. Proposition subordonnée	--	--	--	--	--	--	40	14	31	47	15	32	61	14	34
23. Sujet	30	11	32	35	11	46	45	11	50	52	12	47	60	12	47
24. Complément direct du verbe	18	8	10	28	10	27	36	12	49	45	12	46	53	11	45
25. Attribut	25	12	6	36	10	21	41	12	40	40	11	43	49	11	41
26. Complément indirect du verbe	9	12	3	27	10	17	35	13	47	44	12	45	50	13	42
27. Complément circonstantiel du verbe	16	12	3	45	9	11	50	12	47	60	12	42	68	13	42

APPENDIX E

THE USE OF TCSL AS A NORM-REFERENCED TEST

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Table E-1. Concept and Task Referents, Answer Key, Index of Difficulty, and Index of Point-Biserial Correlation of Correct Answer with Test Scores, of Questions in *TCSL Test T-1*.

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation with Test Score
1	1	1	C	.42	.45
2	23	1	A	.48	.40
3	12	1	D	.44	.68
4	2	2	C	.54	.68
5	13	2	B	.61	.55
6	24	2	D	.66	.67
7	3	3	A	.63	.55
8	25	3	B	.44	.45
9	14	3	D	.61	.56
10	4	4	D	.48	.68
11	26	4	B	.42	.75
12	15	4	A	.36	.42
13	5	5	B	.61	.52
14	16	5	C	.74	.48
15	27	5	C	.30	.63
16	6	6	D	.66	.58
17	17	6	C	.32	.58
18	12	6	D	.49	.57
19	7	7	B	.37	.67
20	2	7	C	.42	.64
21	18	7	D	.42	.48
22	3	8	B	.64	.71
23	8	8	B	.44	.69
24	14	8	A	.53	.53
25	4	9	C	.40	.57
26	20	9	D	.48	.72
27	9	9	B	.34	.63

Table E-1 (continued)

Question	Concept	Task	Answer Key	Difficulty	Point Biserial Correlation with Test Score
28	21	10	D	.42	.39
29	10	10	C	.45	.38
30	16	10	B	.63	.56
31	11	11	B	.24	.36
32	21	11	A	.31	.36

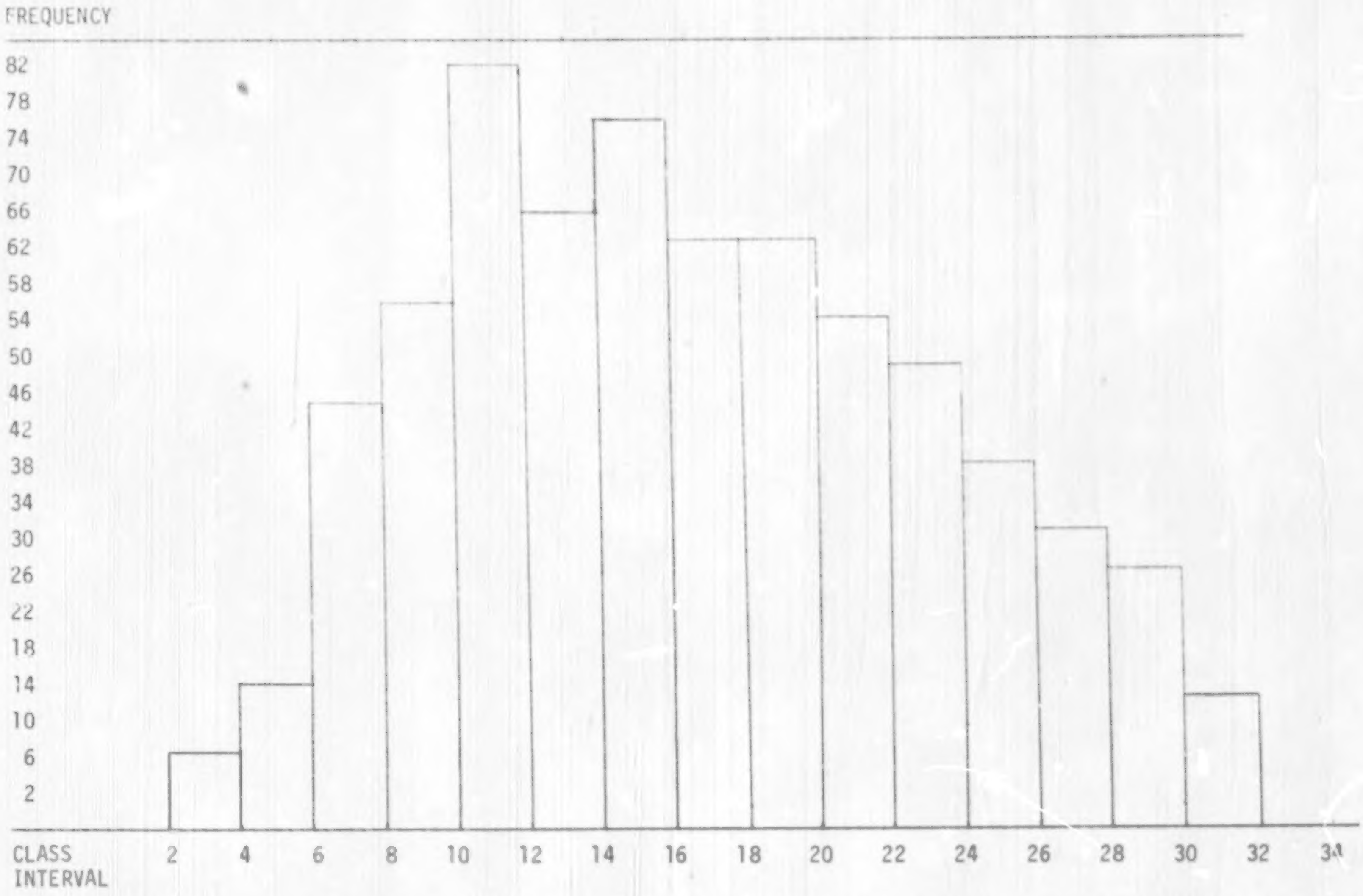

Figure E-1. Frequency Distribution of Scores on TCSL Test T-1 for Students from Grades Four to Eight.

Table E-2. Concept and Task Referents, Answer Key, Index of Difficulty, and Index of Point-Biserial Correlation of Correct Answer with Test Scores of Questions in TCSL Test T-2.

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
1	8	1	D	.41	.62
2	13	1	C	.78	.56
3	24	1	B	.30	.51
4	9	2	D	.52	.68
5	14	2	D	.60	.55
6	25	2	B	.58	.56
7	15	3	A	.46	.65
8	26	3	D	.37	.64
9	4	3	C	.66	.48
10	16	4	C	.67	.50
11	27	4	C	.37	.59
12	5	4	C	.26	.23
13	1	5	C	.41	.45
14	17	5	B	.75	.54
15	2	6	C	.44	.59
16	7	6	B	.54	.52
17	18	6	B	.63	.59
18	19	7	C	.38	.51
19	3	7	C	.47	.70
20	8	7	D	.41	.47
21	1	8	D	.27	.41
22	9	8	B	.45	.56
23	20	8	B	.52	.74
24	5	9	D	.53	.62
25	10	9	C	.27	.39
26	21	9	A	.23	.40
27	22	10	D	.37	.54

Table E-2 (continued)

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
28	4	10	B	.52	.56
29	11	10	A	.33	.54
30	7	11	C	.63	.58
31	12	11	C	.29	.46
32	22	11	C	.17	.24

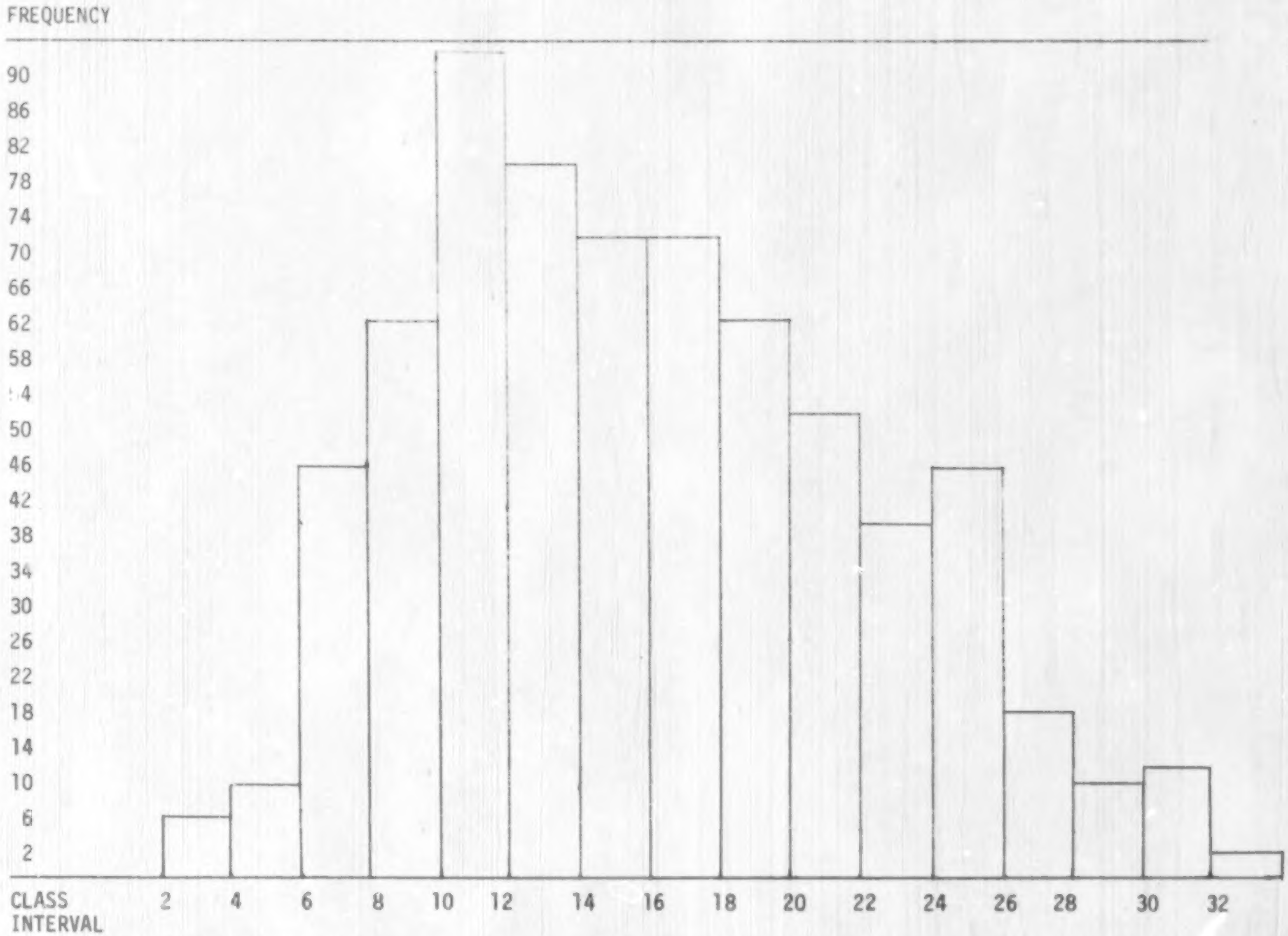

Figure E-2. Frequency Distribution of Scores on TCSL Test T-2 for Students from Grades Four to Eight.

Table E-3. Concept and Task Referents, Answer Key, Index of Difficulty, and Index of Point-Biserial Correlation of Correct Answer with Test Scores of Questions in TCSL Test T-3.

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
1	3	1	B	.76	.69
2	19	1	C	.62	.58
3	7	1	D	.85	.62
4	4	2	B	.64	.68
5	20	2	B	.25	.52
6	8	2	B	.51	.72
7	5	3	C	.50	.51
8	10	3	A	.38	.63
9	21	3	B	.21	.50
10	6	4	C	.85	.63
11	11	4	C	.80	.70
12	22	4	B	.35	.70
13	7	5	C	.69	.69
14	12	5	B	.57	.72
15	23	5	C	.60	.72
16	8	6	A	.33	.26
17	13	6	A	.62	.47
18	24	6	D	.22	.25
19	9	7	D	.21	.38
20	14	7	B	.39	.14
21	25	7	C	.27	.42
22	10	8	B	.28	.50
23	15	8	A	.30	.64
24	26	8	D	.15	.40
25	11	9	A	.34	.50
26	16	9	C	.78	.65
27	27	9	D	.62	.69

Table E-3 (continued)

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
28	1	10	C	--	--
29	12	10	C	.50	.49
30	17	10	B	.66	.43
31	2	11	A	.47	.46
32	18	11	A	.62	.67
33	6	11	C	.49	.61

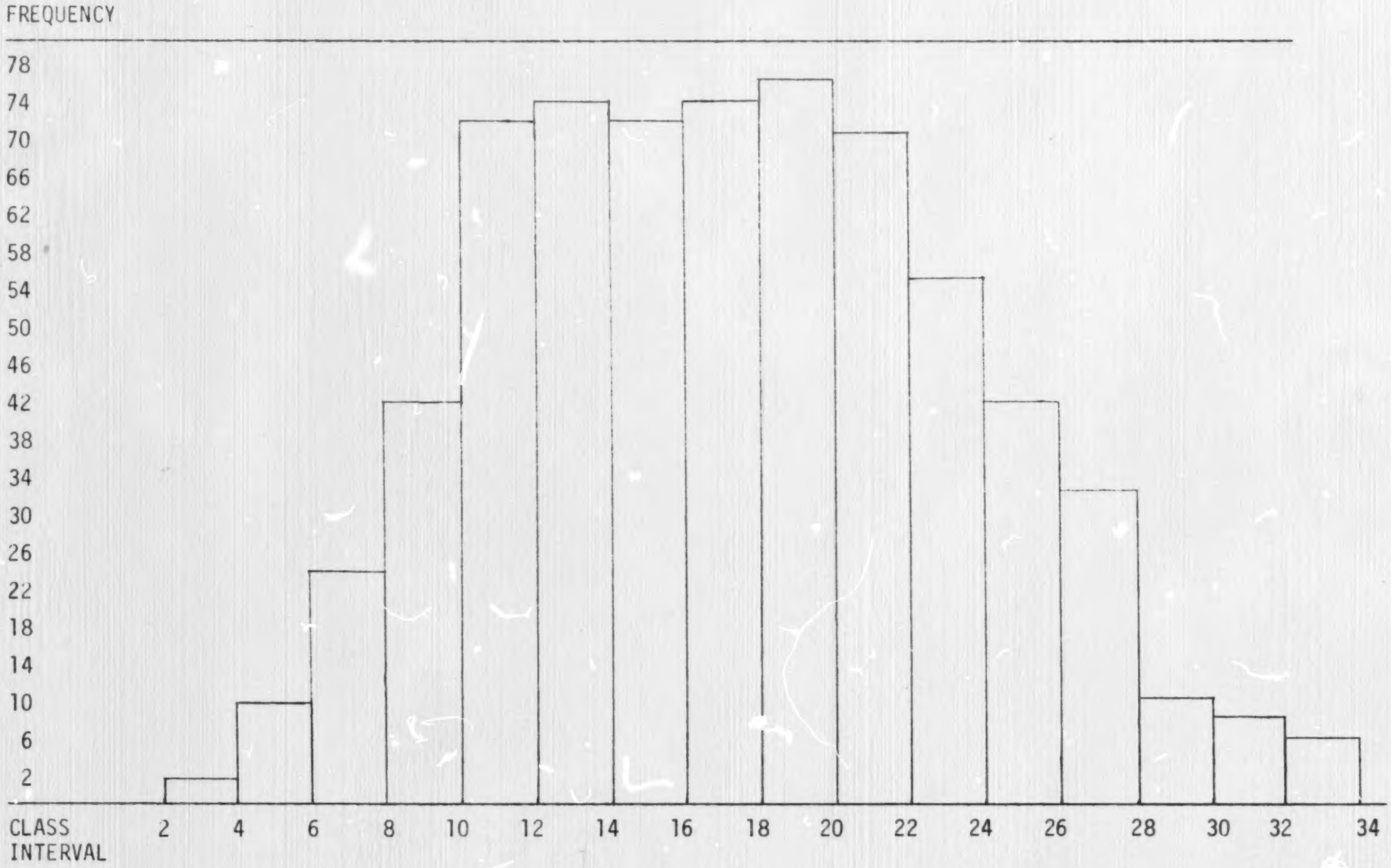

Figure E-3. Frequency Distribution of Scores on TCSL Test T-3 for Students from Grades Four to Eight.

Table E-4. Concept and Task Referents, Answer Key, Index of Difficulty, and Index of Point-Biserial Correlation of Correct Answer with Test Scores of Questions in TCSL Test T-4.

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
1	9	1	D	.38	.50
2	14	1	B	.54	.76
3	25	1	C	.36	.38
4	10	2	B	.33	.49
5	15	2	A	.51	.43
6	26	2	D	.27	.62
7	11	3	B	.92	.51
8	16	3	B	.60	.68
9	27	3	B	.34	.66
10	1	4	D	.51	.61
11	12	4	D	.40	.74
12	17	4	C	.51	.56
13	2	5	D	.58	.44
14	13	5	B	.79	.61
15	18	5	B	.80	.62
16	3	6	B	.49	.54
17	14	6	D	.34	.66
18	19	6	A	.47	.45
19	4	7	D	.36	.60
20	15	7	D	.41	.55
21	20	7	D	.37	.32
22	5	8	B	.65	.39
23	21	8	C	.48	.24
24	25	8	A	.74	.30
25	26	9	C	.37	.42
26	6	9	B	.80	.41
27	22	9	A	.45	.50

Table E-4 (continued)

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
28	7	10	D	.82	.48
29	23	10	D	.38	.43
30	27	10	D	.57	.41
31	8	11	A	.42	.46
32	13	11	B	.42	.35
33	17	11	B	--	--

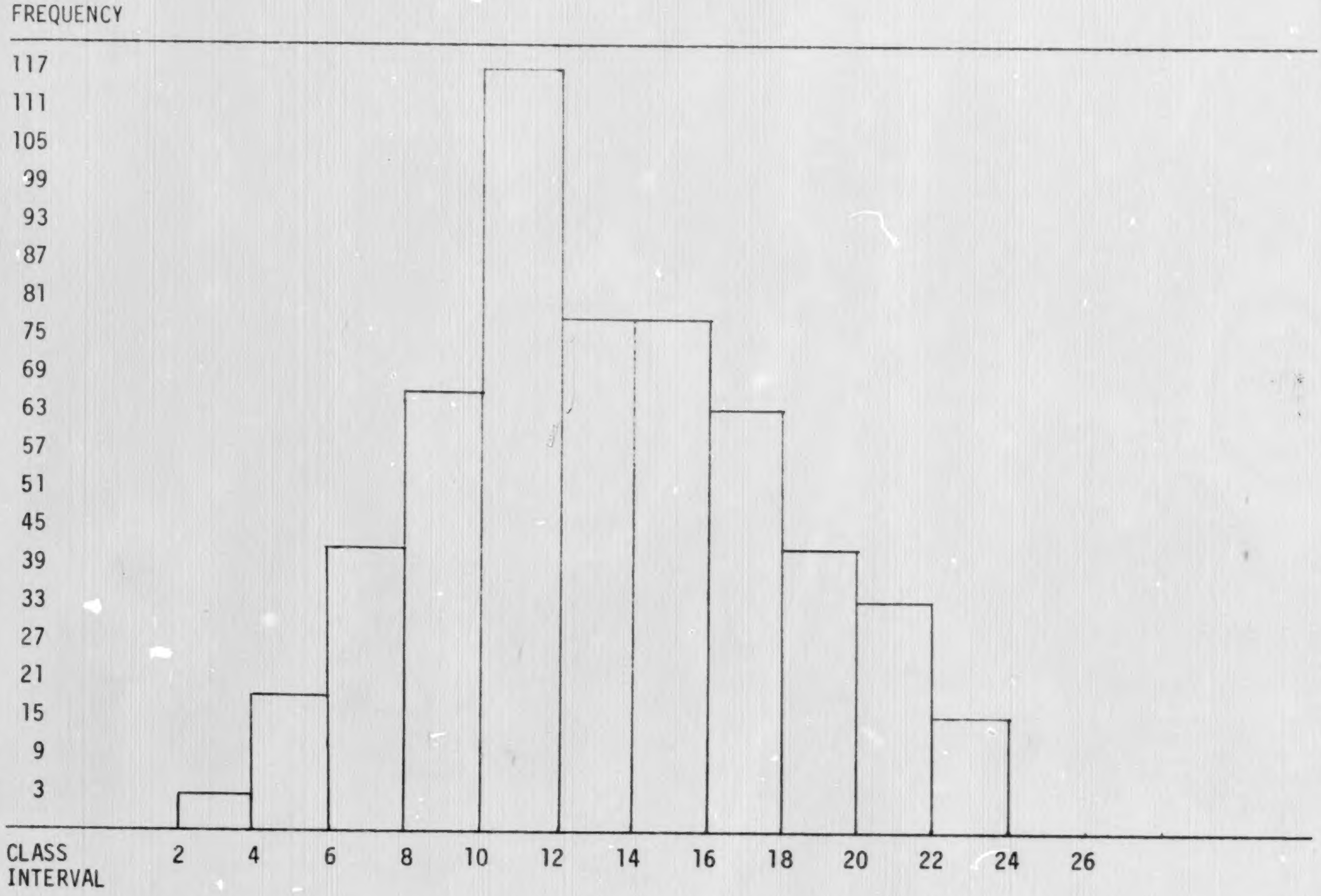

Figure E-4. Frequency Distribution of Scores on TCSL Test T-4 for Students from Grades Four to Eight.

Table E-5. Concept and Task Referents, Answer Key, Index of Difficulty, and Index of Point-Biserial Correlation of Correct Answer with Test Scores of Questions in TCSL Test T-5.

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
1	4	1	C	.35	.50
2	15	1	A	.63	.59
3	20	1	C	.32	.50
4	18	1	A	.71	.47
5	5	2	D	.74	.47
6	16	2	A	.84	.75
7	21	2	C	.40	.45
8	6	3	D	.89	.55
9	17	3	C	.66	.47
10	22	3	B	.36	.53
11	7	4	B	.66	.56
12	18	4	D	.76	.53
13	23	4	D	.54	.68
14	8	5	C	.40	.46
15	24	5	B	.53	.80
16	9	6	A	.65	.67
17	25	6	B	.36	.16
18	23	6	B	.35	.61
19	13	7	D	.38	.61
20	10	7	B	.27	.45
21	26	7	C	.43	.54
22	11	8	D	.50	.42
23	16	8	A	.85	.67
24	27	8	B	.61	.74
25	1	9	C	.31	.48
26	12	9	B	.28	.60
27	17	9	C	.76	.59

Table E-5 (continued)

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
28	2	10	B	.47	.62
29	13	10	D	.55	.51
30	18	10	C	.60	.56
31	3	11	B	.64	.60
32	14	11	A	.17	.39
33	19	11	A	.67	.72

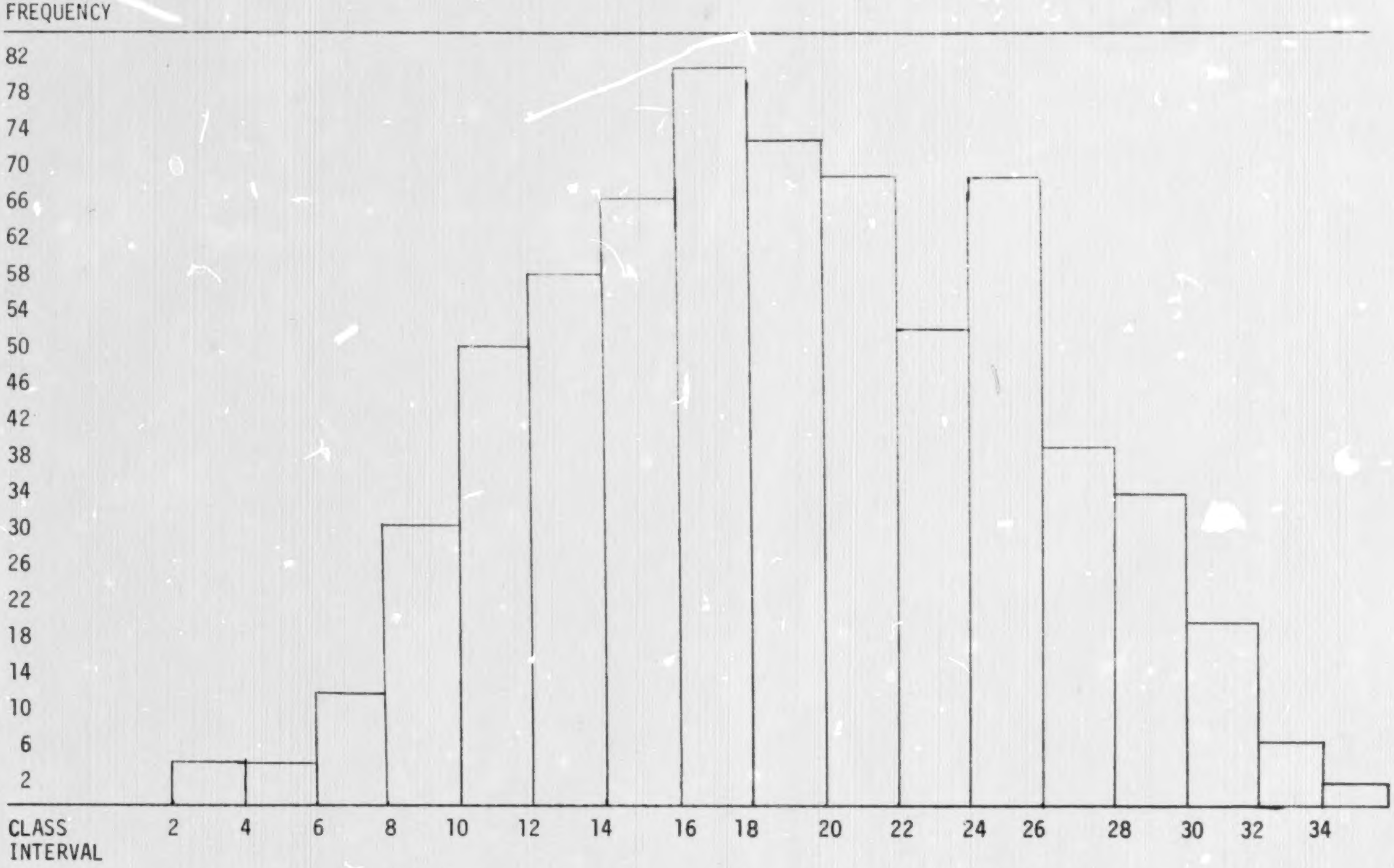

Figure E-5. Frequency Distribution of Scores on TCSL Test T-5 for Students from Grades Four to Eight.

Table E-6. Concept and Task Referents, Answer Key, Index of Difficulty, and Index of Point-Biserial Correlation of Correct Answer with Test Scores of Questions in *TCSL Test T-6*.

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
1	10	1	A	.47	.60
2	21	1	D	.10	.14
3	26	1	C	.22	.50
4	11	2	A	.30	.53
5	27	2	D	.52	.70
6	3	2	B	.67	.66
7	1	3	C	.54	.60
8	12	3	B	.54	.61
9	20	3	A	.25	.53
10	2	4	D	.68	.60
11	13	4	D	.74	.56
12	10	4	B	.32	.46
13	3	5	C	.76	.58
14	14	5	C	.66	.59
15	19	5	D	.34	.68
16	4	6	B	.47	.56
17	15	6	D	.28	.54
18	20	6	A	.37	.66
19	5	7	D	.48	.49
20	16	7	C	.42	.50
21	21	7	B	.34	.53
22	24	7	D	.33	.60
23	6	8	C	.75	.42
24	17	8	B	.69	.57
25	22	8	C	.40	.62
26	7	9	A	.49	.54
27	18	9	B	.78	.54

Table E-6 (continued)

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
28	23	9	B	.31	.70
29	8	10	A	.44	.53
30	19	10	A	.41	.52
31	24	10	C	.53	.58
32	9	11	A	.40	.67
33	25	11	A	.32	.51

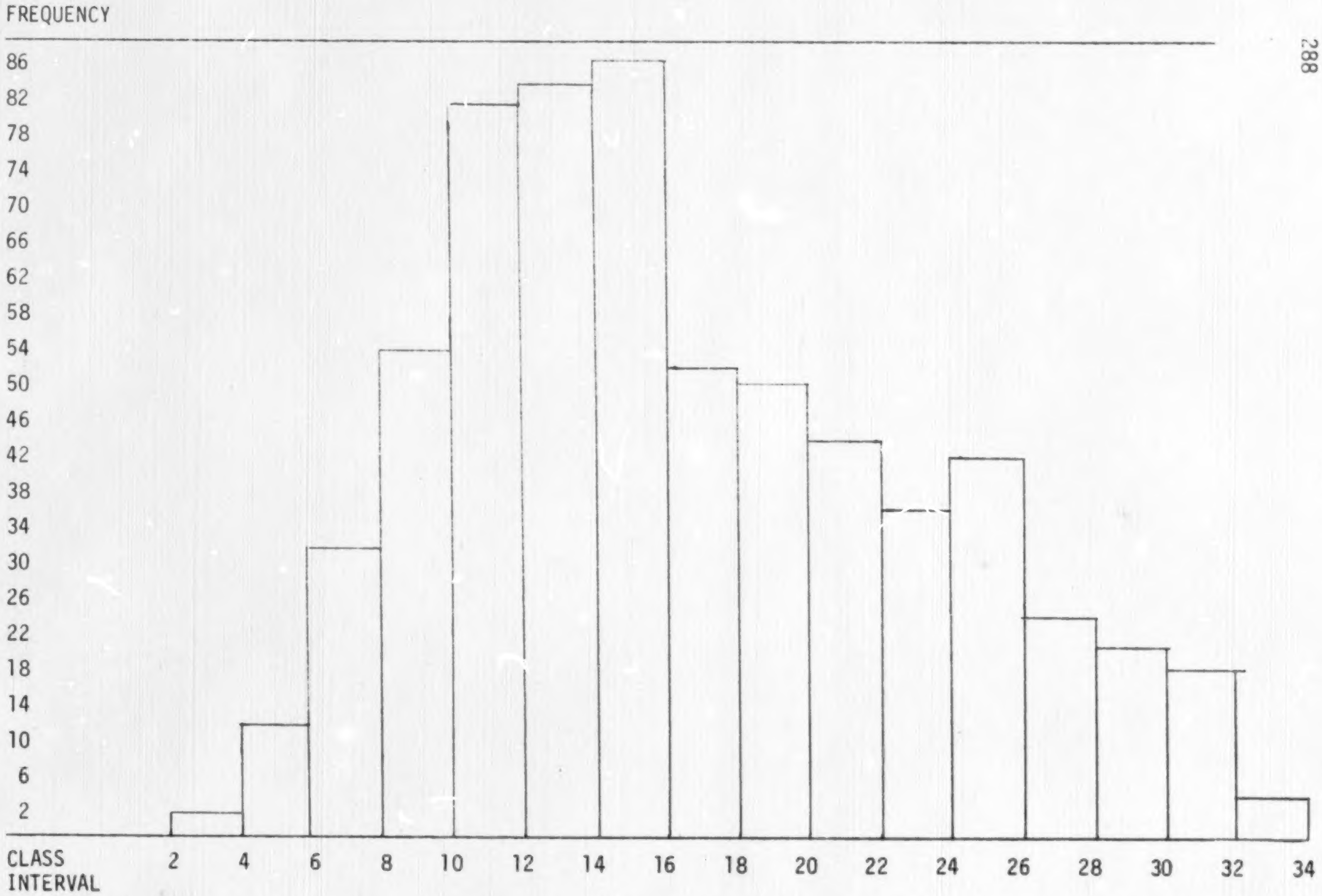

Figure E-6. Frequency Distribution of Scores on TCSL Test T-6 for Students from Grades Four to Eight.

Table E-7. Concept and Task Referents, Answer Key, Index of Difficulty, and Index of Point-Biserial Correlation of Correct Answer with Test Scores of Questions in TCSL Test T-7.

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
1	5	1	B	.49	.23
2	16	1	B	.73	.54
3	6	2	C	.79	.32
4	17	2	C	.76	.63
5	22	2	B	.28	.72
6	7	3	C	.49	.50
7	18	3	D	.64	.52
8	23	3	B	.67	.63
9	8	4	C	.82	.59
10	19	4	B	.17	.51
11	24	4	B	.47	.60
12	9	5	C	.61	.60
13	20	5	B	.27	.48
14	25	5	A	.39	.50
15	19	2	A	.66	.54
16	6	5	A	.69	.58
17	10	6	D	.27	.59
18	21	6	A	.29	.58
19	26	6	B	.26	.57
20	11	7	D	.36	.48
21	27	7	C	.29	.56
22	4	8	D	.26	.47
23	12	8	A	.34	.61
24	19	8	B	.26	.58
25	2	9	C	.34	.53
26	13	9	C	.51	.54
27	14	9	D	.15	.-3

Table E-7 (continued)

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
28	3	10	A	.66	.50
29	14	10	C	.32	.28
30	6	10	B	.20	.48
31	4	11	C	.53	.48
32	15	11	A	.31	.58
33	1	11	C	.38	.42

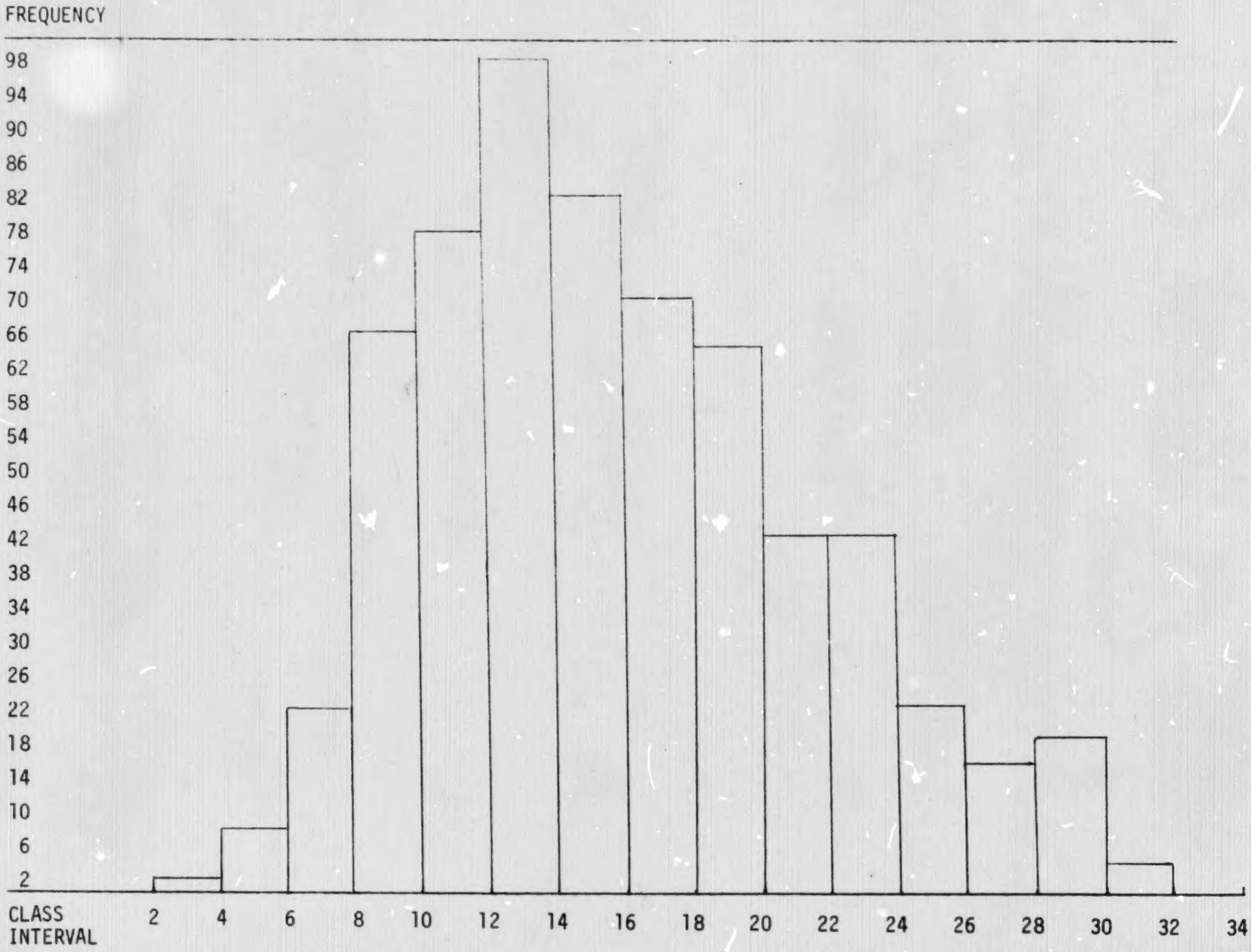

Figure E-7. Frequency Distribution of Scores on TCSL Test T-7 for Students from Grades Four to Eight.

Table E-8. Concept and Task Referents, Answer Key, Index of Difficulty, and Index of Point-Biserial Correlation of Correct Answer with Test Scores of Questions in TCSL Test T-8.

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
1	11	1	C	.83	.55
2	22	1	C	.27	.53
3	27	1	B	.61	.59
4	1	2	C	.52	.22
5	12	2	A	.44	.52
6	23	2	C	.56	.49
7	2	3	A	.61	.55
8	13	3	C	.78	.59
9	24	3	B	.35	.51
10	3	4	B	.64	.55
11	14	4	A	.50	.51
12	21	4	C	.34	.61
13	11	5	D	.90	.49
14	22	5	D	.44	.72
15	4	5	A	.54	.45
16	15	5	D	.51	.47
17	5	6	B	.56	.65
18	16	6	C	.28	.62
19	1	6	A	.39	.54
20	6	7	D	.57	.61
21	17	7	B	.48	.30
22	22	7	B	.37	.69
23	7	8	A	.54	.73
24	18	8	B	.56	.55
25	23	8	C	.51	.45
26	8	9	B	.34	.52
27	19	9	A	.36	.58

Table E-8. (continued)

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
28	24	9	D	.22	.51
29	9	10	A	.47	.52
30	20	10	D	.47	.55
31	25	10	D	.15	.19
32	10	11	D	.51	.41
33	26	11	A	.26	.40

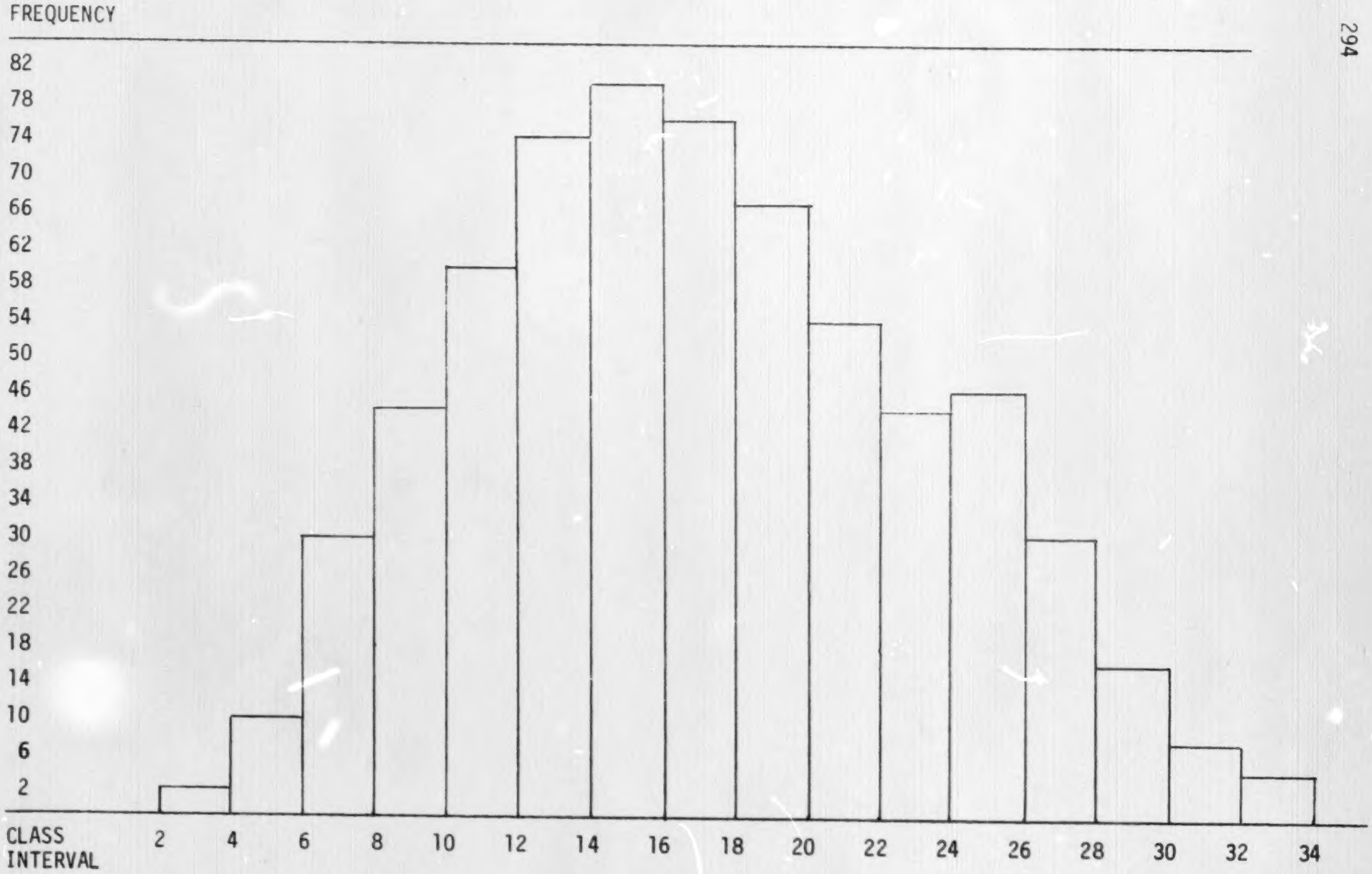

Figure E-8. Frequency Distribution of Scores on TCSL Test T-8 for Students from Grades Four to Eight.

Table E-9. Concept and Task Referents, Answer Key, Index of Difficulty, and Index of Point-Biserial Correlation of Correct Answer with Test Scores of Questions in TCSL Test T-9.

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
1	6	1	B	.91	.41
2	17	1	A	.66	.62
3	7	1	D	.85	.59
4	7	2	A	.59	.54
5	18	2	B	.88	.60
6	8	3	D	.47	.60
7	9	3	A	.41	.42
8	19	3	C	.40	.65
9	9	4	C	.25	.55
10	20	4	B	.22	.60
11	25	4	D	.31	.43
12	10	5	A	.59	.64
13	21	5	C	.26	.39
14	26	5	B	.42	.68
15	11	6	B	.43	.64
16	22	6	C	.31	.48
17	27	6	D	.50	.66
18	1	7	C	.32	.27
19	12	7	D	.40	.61
20	23	7	C	.53	.47
21	2	8	B	.51	.66
22	13	8	D	.52	.50
23	24	8	B	.12	.40
24	3	9	C		
25	15	9	A	.36	.61
26	25	9	A	.38	.57
27	15	10	A	.12	.34

Table E-9 (continued)

Question	Concept	Task	Answer Key	Difficulty	Point-Biserial Correlation With Test Score
28	26	10	B	.51	.53
29	5	10	A	.73	.63
30	16	11	D	.50	.59
31	5	11	B	.45	.42
32	27	11	D	1.00	.01

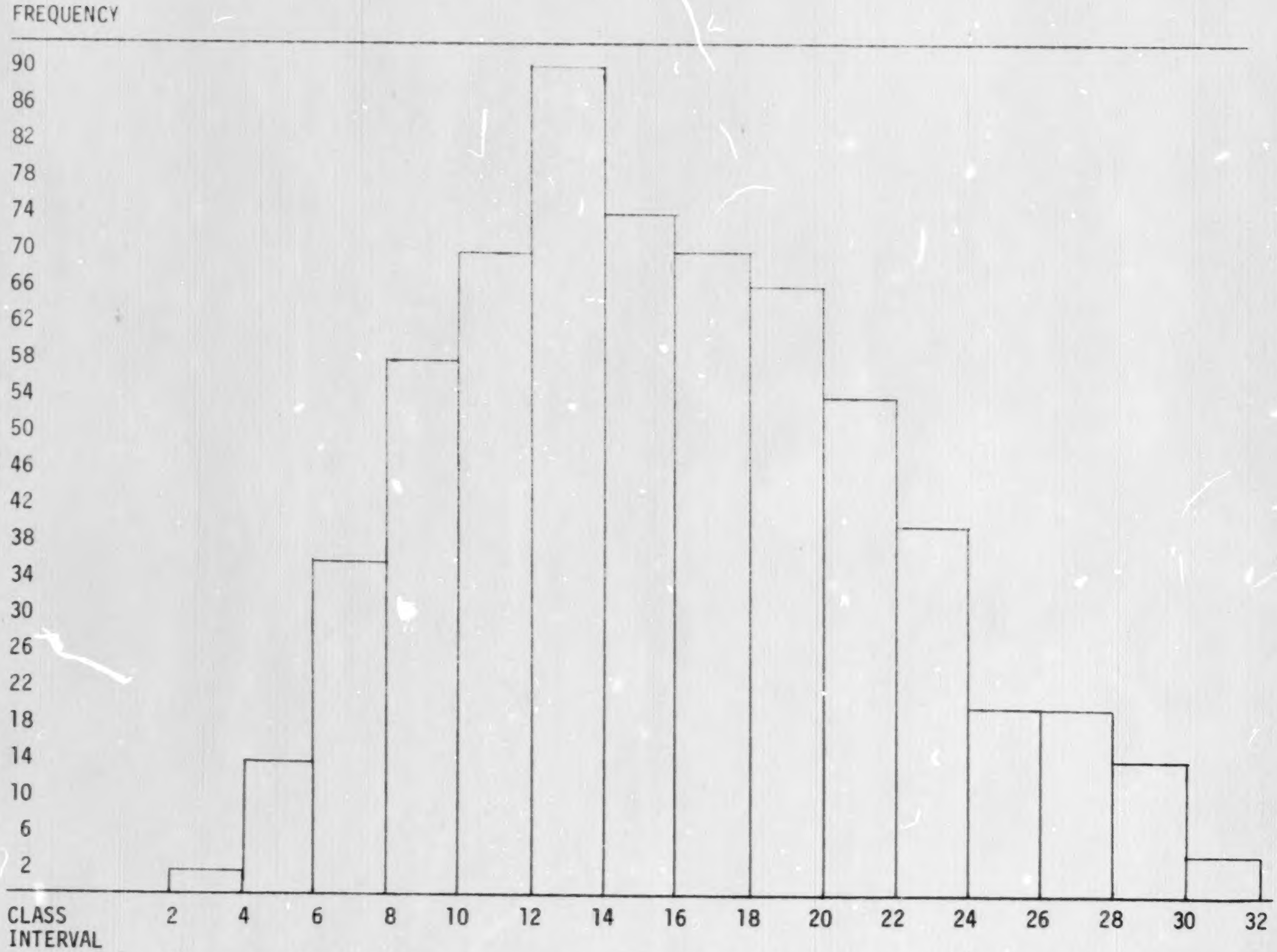

Figure E-9. Frequency Distribution of Scores on TCSL Test T-9 for Students from Grades Four to Eight.